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v. 32

November
1932

Electrical Contracting

With Which Is Incorporated
The Electragist

Don't put up with this!

**IT'S UNSIGHTLY
IT CAUSES FIRES
IT'S A CASUALTY HAZARD**



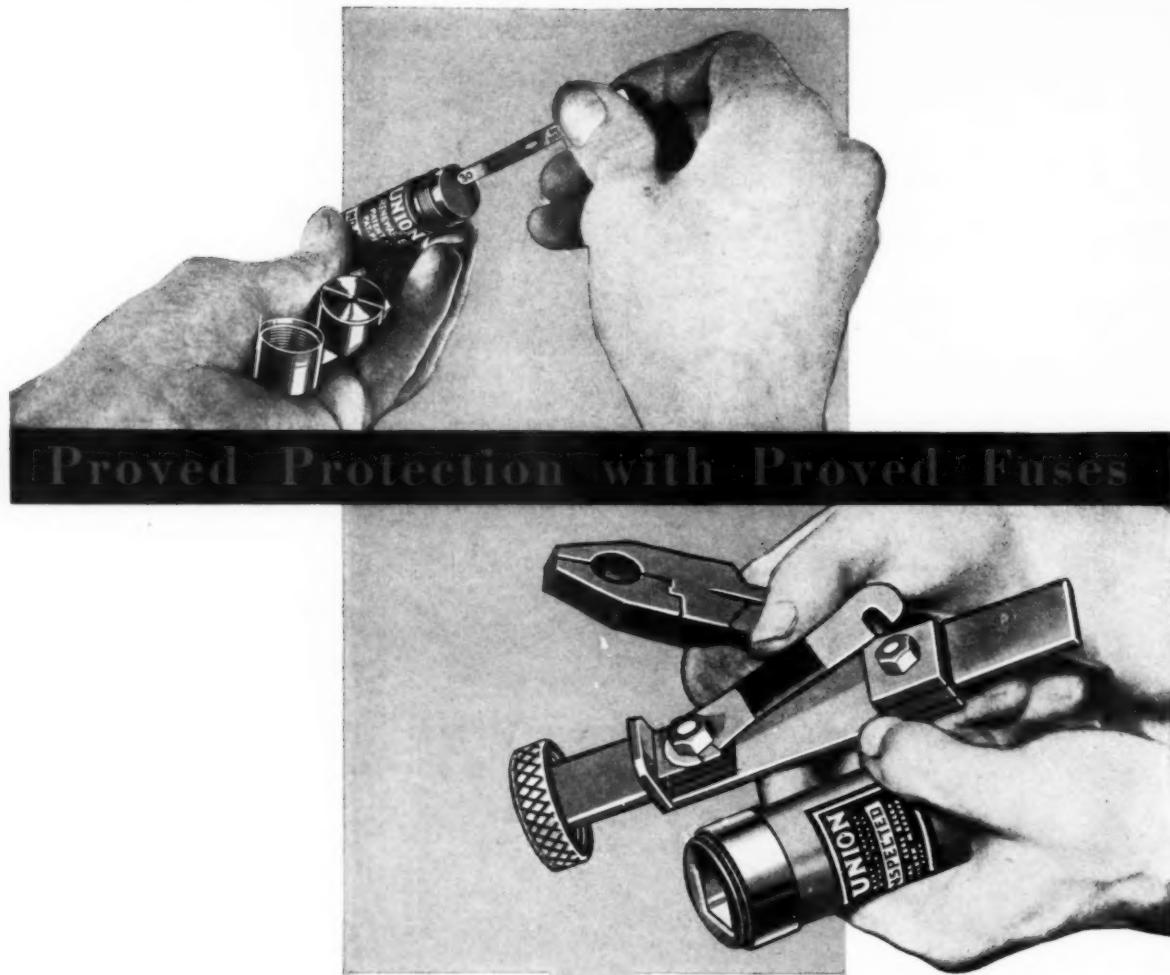
NOW you can have a
neat, professional job,
cheaper than you ever
thought possible, with

**METAL
XTENSION DUCT**

Almost Invisible!

National Electric Products Corporation... Pittsburgh, Pa.

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Proved Protection with Proved Fuses

Holding the gain

Delays in producing goods to fill an order are dangerous enough to goodwill at any time—even when orders are easy to get. But when there is a fight for every order, delays in shipment are disastrous. Customers soon lose patience—go elsewhere.

To insure uninterrupted production, adequate protection to every electrical circuit is one of the first precautions for holding your gain as business recovers. And fuses are the backbone of electrical protection.

Every circuit should be inspected to make sure

that the correct fuse is in place. Jefferson (Union) Fuses should be installed because their quality and dependability have been proved by decades of service. Jefferson Renewables should be installed because they save time—have fewest possible number of parts—are vented by exclusive methods so that casings withstand repeated blowouts—many new fuses for the price of links.

Remind every prospect of these facts and you will find that this necessity—Jefferson Fuses—is a sure-selling, profitable line.

JEFFERSON ELECTRIC COMPANY
Bellwood (Suburb of Chicago) Illinois

JEFFERSON RENEWABLE FUSES

VOLUME 32
NUMBER 1

electrical contracting

WITH WHICH IS INCORPORATED THE ELECTRAGIST
S. B. WILLIAMS, EDITOR AND GENERAL MANAGER

PUBLISHED MONTHLY

BY

ELECTRICAL TRADE
PUBLISHING
COMPANY

CHICAGO
520 NORTH MICHIGAN AVE.
WHITEHALL 7900

NEW YORK
330 WEST 42ND ST.
MED. 3-0700

CLEVELAND
GUARDIAN BLDG.
MAIN 3981

CONTENTS FOR NOVEMBER, 1932

John Wise	5
Electragists Change Name to National Electrical Contractors Association	6
President Mayer's Report	11
The Jobber's Best Customer, by W. R. Herstein	12
Where Are We Going and What Must We Do to Get There, by I. A. Bennett	14
Report of Trade Policy Committee	15
Local Rules vs. Code Uniformity, by George Andrae	16
Sales Minds vs. Business Sense, by F. O. Sievers	17
Merchandising Survey Report, by Robert J. Nickles	19
Builds Big Volume in City of 9000	21
Why Portland Needs Reinspection	22
Editorials	24
Code Chats	26
Contracting News	30
Practical Methods	44
Manufacturers' News	48
Index to Advertisers	54

Entered as Second Class Matter November 14, 1928,
at the Post Office at Chicago, Illinois, under
the Act of March 3, 1879. Copyright, 1930, by the
Electrical Trade Publishing Company. Yearly Sub-
scription: United States, \$2.00; Foreign, \$2.50; Can-
ada, \$3.00, including duty. Single copies, 20 cents.



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9000 feet

OF STEELTUBES . . .

*in this
Loud-speaker
Installation*

{Above}
Final Home Runs in
West Tech Loud-speaker
Installation

• The loud-speaker installation of West Tech High School, Cleveland, Ohio, is an outstanding example of the adaptability of Steeltubes Threadless Thinwall Conduit. In this installation, made by Reserve Electric Co., of Cleveland, Steeltubes in sizes from 2" down is used to carry conductors to control apparatus, and to 150 loud-speakers.

Steeltubes is the modern conduit . . . the pioneer . . . formed cold from cold-rolled open-hearth strip steel, and electrically welded. Its smooth galvanized surface makes it inconspicuous where it is impossible to install a concealed job.

Short bends, offsets and dog-legs offer no difficulties with Steeltubes. Can be bent accurately to measure and worked in close quarters. Easy to straighten and rebend.

Use Steeltubes on your next wiring job. Give it a chance to prove to you that it *does* make the electrical dollar go farther.

Electrical Division

STEEL AND TUBES, INC.

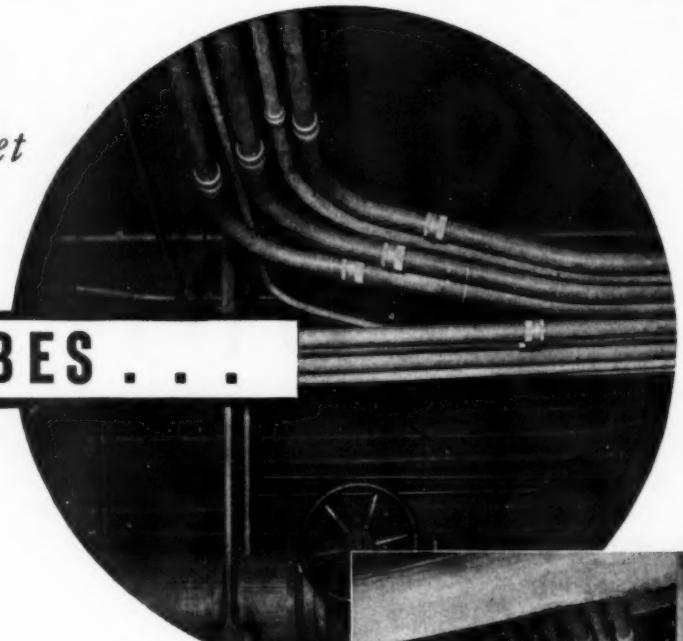
The World's Largest Producer of Electrically Welded Tubing
CLEVELAND > > < < OHIO

A UNIT OF REPUBLIC STEEL CORPORATION

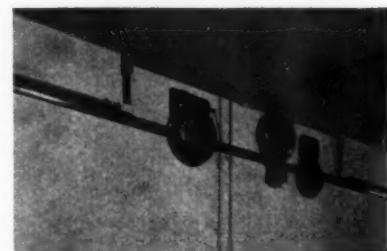


STEEL TUBES

Threadless Thinwall Conduit



Home Runs Entering Pull Box



Offset Around Signal Alarm



Runs Through Floor to Control Room



Control Room Circuits

profits

ONE of the biggest complaints made by other branches of the industry against the electrical contractor is that he will not cooperate on sales and promotional campaigns, or in the pushing of some particular class of products.

Years ago if a child was dull and seemingly lazy, it was given a bad name and finally allowed to shift for itself. Today that same child is taken to a doctor to find out what is wrong.

Perhaps there is some reason why the contractor does not bestir himself more. Let us look at some facts.

AMOTOR specialist gets 17 per cent discount on motors to cover his sales cost and a profit. A resale manufacturer, for the same motor, gets 20 per cent off and, and if he wants to, may use that discount to buy for anybody at a price below the contractor's cost.

A department store will refuse to handle any item unless there is at least 40 to 50 per cent off as a margin. The contractor for the item is expected to sell with 10 to 15 per cent less in discount.

A league works up a program for the sale of additional outlets, runs some good advertisements in the papers, gets the utility to put in advertising stuffers with the bills, and persuades the contractors to make a special low price for the campaign of three to four dollars an outlet. All the contractors have to do is to call on every householder and sell more outlets. In from 1 in 20 to 1 in 40 calls does the contractor get an opportunity to tell his story.

A contractor cannot buy commercial glassware, as a rule, on as favorable terms as the owner of the building.

A power company puts on a drive for range business and asks the organized contractors for a price which after many discussions is arrived at to the

mutual satisfaction of both sides. Instead of the work going to the group that made the price, however, a new contractor gets the work at half or less, generally just about equal to the price of materials.

THESE are but a few cases in the whole range of experience in electrical distribution, but they are sufficient to indicate that investigation will show that perhaps there is some real good reason why contractors do not show more inclination to get enthusiastic over every proposition brought to them.

Manufacturers, who have made any study of their own sales cost by classification, know that the industrial plants that can be sold motors for less than 20 per cent field sales cost are few in number. It is not uncommon to find these costs run from 40 to 60 per cent or more. This same condition holds for all other industrial equipment. Why is the contractor expected to sell for so much less?

A league knows that it costs money to sell additional outlets, that the job cannot be done solely by advertising. Is the electrical contractor supposed to have some special persuasion by which he can reduce his selling expense to a nominal sum?

Nother words, the contractor is human just like everybody else. Before he will accept a proposition and work for it, he wants to know how he is coming out. He wants a profit. Manufacturers, wholesalers, leagues and utilities must learn that they cannot expect the contractor to enter into any sales activity unless he can do so at a profit.

If, before any sales plans were announced, it were studied from the standpoint of profit to all concerned, there would be fewer failures to charge to the contractor.

ONE KEY to a reliable business

... *reliable wiring supplies*

A superior business cannot be built on inferior methods... Wise contractors know this. They know that the key to a reliable business is reliable workmanship, *plus reliable materials*.

Experienced contractors know that the difference between superior and inferior wiring supplies may be the difference between a lasting installation and costly breakdowns. Recognizing their responsibility, wise contractors forestall such undesirable breakdowns by installing only first-class materials.

On this basis, they are building

themselves the kind of substantial business that stands even the test of such times as these.

But the question arises:—How is one to identify good, bad and indifferent wiring supplies? They *look* alike. Even the experienced eye finds difficulty in telling these apart.

Experience has shown the best answer to be the reputation of the supplier... Graybar's reputation for quality electrical supplies goes back to the very beginnings of the electrical industry in this country.

Graybar

Your patriotic duty—vote this year!

OFFICES IN 76 PRINCIPAL CITIES. EXECUTIVE OFFICES: GRAYBAR BUILDING, NEW YORK, N. Y.

VOLUME 32
NUMBER 1

electrical contracting

WITH WHICH IS INCORPORATED THE ELECTRAGIST

NOVEMBER
1932



HAROUN AL RASCHID

Away back in the days when Rome was a flag-station, and a guy with six wives was a piker, the head man in the great city of Bagdad was the celebrated Caliph Haroun Al Raschid.

His popularity during the first years of his reign was the talk of all Asia. "Live and let live," was his motto; so long as the taxes came in and business was good, he stuck to his golf and bridge, letting the people alone.

But one fine year the crops went haywire, stock quotations read like hat sizes, building stopped and the "Bagdad Blues" became the official theme song. Finally, when the big merchants and contractors quit calling him Al, and "boos" slipped in among the cheers for the Caliph, friend Haroun woke up to the fact that business was rotten and that the cits were all for pinning the blame on him.

Now, Al had a dollar and a half himself and didn't have to worry, so he might have let it ride, but he wasn't built that way. He concluded that something smelled

out loud in Bagdad, and decided on a tour of inspection.

In order to pass unnoticed, he disguised himself as an unemployed camel-driver and just percolated around every night for a week, taking in everything from the slums to the big hotels. What he learned was plenty. The stores were deader than last year's hat, the parks were full of loafers and the cops played pinochle while the crooks cleaned the town. The plumbing system was shot, the street lights were lousy, and there hadn't been

any building, painting or paper hanging done for a year.

Al finally went back to his palace with fire in his eye, and right away there was action. First he sent out a small army of agents to complete his inspection and report all bad spots. Next he issued the largest order for government building and remodelling ever placed, and along with it went an edict commanding every citizen to get busy and fix up his place or be heaved in the cooler.

The answer is easy. Bagdad went beehive overnight, and inside of a month blossomed out with new buildings, new streets, new lights and new prosperity. Every man Jack had dough in his jeans, a song in his heart and hot water for shaving.

Just a little re-inspection, that's all, and re-inspection is the road to salvation for us at the present time. Not only are cities taking it up, but contractors and their organizations are doing a lot on their own hook. With winter upon us and new structures scarce as hen's teeth, electrical corrections and additions should be as prominent in our sales efforts as toy trains and tree lights, and the only way to find this business is to check the customers' wiring systems.

Fight hard for re-inspection.

BY
JOHN
WISE

Electragists change name to NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION



PRESIDENT L. E. MAYER
CHICAGO

of Electrical Contractors, in that it epitomized the constant repetition through the proceedings for the need to return to fundamentals in the conduct of the electrical business.

As conventions go the attendance was not large although the registration, 147, numbered more than last year. On the other hand, because of the character of the program, more people participated in the convention discussion probably than in any Electragist convention in recent years. Delegates were present from fifty-seven cities in twenty-three states, showing a very widespread geographic representation.

The convention opened Monday morning, October 10, with an address of welcome by W. J. Squire, president of the Electragist Chapter of Greater Kansas City and vice-chairman of the local arrangements committee, to which response was made by Louis Kalischer, executive committeeman for the Eastern Division.

President L. E. Mayer next presented his report in which he deplored the non-profit competitive bidding so prevalent today and urged support of the Goss bill. Before closing President Mayer advocated the change in name of the association as being simpler, more easily understood and more conducive to greater association membership.

The convention supported this suggestion unanimously and voted to change the name to National Electrical Contractors Association, retaining the word "Electragist" for identification purpose.

The Trade Policy Committee report presented by the chairman, J. A. Fowler of Memphis, after reciting the economic panic that has prevailed in the electrical industry during the depression, suggested a series of poli-

cies to the several national associations in the industry which, if followed out, would greatly decrease many existing trade abuses and improve trade relations. These suggestions will be found on page 15.

As a curtain raiser for the open forum on distribution problems, R. J. Nickles of Madison, Wis., chairman of the special committee, read his report on the merchandising survey made this spring by the committee. The report which is abstracted on page 19 brought out a number of very significant points. It showed that with the exception of a few large department stores, the electrical contractor-dealers and the power companies were vir-

tually the only outlets for quality electrical merchandise; that the price competition of cheap merchandise in non-electrical stores was hurting the sale of quality products; that 96 per cent of the dealers contacted favored the elimination of the utility from merchandising; that construction activities of the central station are little as regards actual wiring but are serious as regards setting prices; that the depression has retarded merchandise sales from 50 to 60 per cent; and that the merchandising situation in Kansas and Oklahoma is rapidly clearing up and reaching a position where it will be possible fairly to judge the effectiveness of the anti-merchandising laws.

In the discussion that followed it was obvious that those at the convention were not opposed to merchandising by utilities in principle but in practice. They expressed themselves as perfectly willing and in fact eager to work with the utilities but they were tired of promises not kept. The quality aspect of the contractor-dealer's wares was re-emphasized in the discussion as was also the seriousness of the chain store competition, particularly in wiring devices.



Executive Committee: Standing, Louis Kalischer, Brooklyn; E. D. Brown, Detroit; Frank Langford, Minneapolis; W. W. Ingalls, Miami; J. H. Schumacher, Winnipeg; D. B. Clayton, Birmingham; F. O. Sievers, San Francisco; R. R. Reid, Salt Lake City; H. B. Frazer, Philadelphia; R. J. Nickles, Madison; J. A. Fowler, Memphis. Seated, President L. E. Mayer, Chicago; Vice-President, E. N. Peak, Marshalltown, Iowa, and General Manager, L. W. Davis, New York.



Discussion on the subject of direct sales was opened by Richard Wahle of Buffalo, N. Y., who gave the contractors reasons why manufacturers and jobbers should not sell direct and their own reasons for this practice. These are given on this page.

Oklahoma City reported progress in this connection as the result of a classification of industrial accounts and conditions under which a wholesale discount might be extended by jobbers.

Much of the direct selling was characterized by a panicky condition on the part of wholesalers and manufacturers.

This subject lead naturally into "credits". The actions of the three national chains in opposing credit control was criticized many times. A number of speakers recommended that organized contractor groups demand of their wholesalers the same terms allowed by them to any other customer. Thus if a wholesaler permitted a customer to settle on the basis of twenty-five cents on the dollar then all members of the contractors' group should insist on similar terms on their own indebtedness to this house. Likewise, if a wholesaler permits any contractor to have credit for three or six months or longer, then the organized contractors should refuse to pay their accounts until they had run an equal time, on the theory that contractors who pay in cash, or thirty days, will supply the wholesaler with funds to carry the others who in most instances are the ones who are wrecking wiring prices.

Monday afternoon was devoted to a forum on legislation, wiring methods and standards with vice-president E. N. Peak in the chair.

1. Frank Haney and T. C. Mustain, Omaha, Nebr.

2. W. J. Squire, president, Kansas City Electragist Chapter, and newly elected member of the executive committee.

3. Richard Wahle, Buffalo, N. Y.

4. Reception Committee: Grouped are most of the members of the convention committee.

5. Mr. and Mrs. R. J. Nickles, Madison, Wis.

6. A. W. VanNort, St. Louis, Mo.

7. Louis Kalischer, Brooklyn, N. Y.

8. Chairmen Convention Committees: W. J. Squire, Harry C. Evans, R. B. Randall, G. G. Burkholder and F. E. Geiss.

9. Mr. and Mrs. Roy W. Springer, Superior, Wis.

10. G. O. Phillips, Chanute, Kans., president, Se-Kan Chapter, Association of Electragists.

11. W. W. Ingells, Miami, Fla.; F. T. Langford, Minneapolis, Minn., and Vice-President Earl N. Peak, Marshalltown, Iowa.

DIRECT SALES TO CONSUMERS

Presented by Richard Wahle

Contractors' Reasons Why the Jobber and Manufacturer Should Not Sell Direct

1. Deprives the contractor of profit on the material.
2. Owner or jobber salesman not qualified to determine the correct selection of materials.
3. Plant electrician seldom knows code.
4. Contractor receives only profit on labor, but has the responsibility for the whole job.
5. Manufacturers' representative seldom on hand when wanted.

Jobbers' Reasons for Selling Direct

1. The Jobber, when a contractor, sold the Industrial.
2. Customer, as a general rule, is a better credit risk than the average contractor.
3. Contractors' business alone is not sufficient for the jobber to carry on because the contractor does not confine his purchases to jobbers.
4. Jobber feels contractor tries to "skimp" the job and eliminate part of the equipment if he thinks he has competition, and also makes no effort to sell appliances, etc., for the job.
5. Owners object to paying the scale of wages and feel it more economical to hire their own plant electricians. They demand that Jobbers and Manufacturers sell to them.
6. Too many incompetent Contractors who do not know their limitations, and sell an inferior job.

Manufacturers' Reasons for Selling Direct

1. Because they have no jobber representation.
2. Competition on large orders becomes a fight between manufacturers.
3. Manufacturer is held responsible for the proper operation of his equipment. Improper installations have given them great expense, so they eliminate this by doing all wiring in factory and selling direct.



12. George Broome, Amarillo, Tex., and D. B. Clayton, Birmingham, Ala.

13. John D. Belthoover and J. A. Pope, Cincinnati, Ohio.

14. James G. Fox, Greenwich, Conn., and J. J. Caddigan, Boston, Mass.

15. Mr. and Mrs. J. H. Schumacher, Winnipeg, Canada.

16. Mr. and Mrs. W. F. Gerstner, St. Louis, Mo.

17. L. T. Allen, Tulsa, Okla.; "Bill" Damon, secretary, Electragists Chapter, Oklahoma City; Harold E. Black, Oklahoma City, and G. A. Peer.

18. J. Roland Stolzenbach, Baltimore, Md., chairman, Motor Specialists Section.

which is abstracted on page 16 concluded with a plea for some codification of these special rules.

In connection with reinspection W. J. Squire spoke of the work of the Kansas City Electragists wherein the fire department was mobilized. The fire inspectors were given a short intensive training in the power com-



Part of a group of the ladies who enjoyed the sightseeing trip and luncheon at one of the popular places in Kansas City.

pany's laboratory in the primary things to look for. The work is now in progress.

F. O. Sievers of San Francisco, analyzed the California Contractors' License Law which regulates all contractors.

E. D. Brown, Detroit, Mich., presided over the Tuesday morning session which was devoted to contracting and competitive problems.

An address entitled "Intelligent Competition" was de-

19. Credentials Committee: E. D. Brown, Detroit, Mich.; R. J. Nickles, Madison, Wis., and R. R. Reid, Salt Lake City, Utah.

20. H. B. Frazer and Walter V. Pangborn, Philadelphia, Pa.

21. Mr. and Mrs. E. D. Brown, Detroit, Mich.

22. William Mc Guineas, president, and J. W. Collins, secretary, Electrical Contractors' Association of Chicago.

23. L. B. Van Nys, Peoria, Ill., and Edgar Rice, Alton, Ill.

24. Herman Andrae and George Andrae, Milwaukee, Wis.



The chairman of the Legislative Committee, W. W. Ingalls of Miami, Fla., presented a rewording of the paragraph regarding licenses for maintenance work in the association's Recommended Licensing Ordinance Paragraphs. As passed the paragraph provides for licenses to be held by the factory owner and work to be done only in a stated premise, owned or operated by holder of license, under direction or by an electrician who has passed a suitable examination.

A. Penn Denton, engineer-director of the armored cable group of N.E.M.A., spoke on industry standards and regulations with particular reference to trial installation procedure and concentric wiring in that connection. Mr. Denton contended that concentric wiring, nor any other material, could be subjected to a fair test except under normal industry operations. He urged a uniform procedure for trial installations.

The convention showed considerable interest in concentric wiring and bare neutral and secured from Mr. Denton the promise of an engineering investigation into bare neutral for the guidance of the association.

A fine exposition of the need for special rules was made by George Andrae, Milwaukee, Wis., in a paper entitled "Local Rules vs. Code Uniformity". This paper

livered by Frank J. Seiler, president, Electrical Survey Bureau of Kansas City. Mr. Seiler showed that by quantity surveys a more careful estimate as a rule could be secured and with more people working on the same prime cost basis there was less chance for wild bidding.

A companion paper entitled "Integrity of Performance" was read by W. J. Squire, who is president of the Kansas City Electrical Approval Bureau. The paper dwelt on the operations of this bureau which aims to see that wiring jobs are installed according to specifications and not skimped.

D. B. Clayton, chairman of the Cost Data Committee, made a plea for more data.

Before the session closed the election for executive committee was held for districts in which the two year term had expired. Louis Kalischer for the Eastern, W. W. Ingalls for the Southeastern, R. R. Reid for the Mountain and J. H. Schumacher for the Western Canadian, were reelected. For the Great Lakes Division R. J. Nickles of Madison, Wis., was elected to succeed E. D. Brown. Later at the final Executive Committee meeting, in accordance with the vote of the convention to increase the number of executive committeemen-at-large to not more than ten, the following committeemen-at-large were elected: J. A. Fowler, Memphis, Tenn.; W. J. Squire, Kansas City, Mo.; E. D. Brown, Detroit, Mich.; H. B. Frazier, Philadelphia, Pa.; G. M. Sanborn, Indianapolis, Ind., and A. C. Broeckman, Baltimore, Md.

The Motor Specialists Section met on Tuesday afternoon with J. Roland Stolzenbach, chairman of the group, presiding.

The new Westinghouse Dealer Program was explained in some detail by Louis Kalischer of Brooklyn, N. Y.

Complaints were made against the activities of manufacturers' repair organizations, resale manufacturers' superior discounts, and lack of recognition of installer when sale is made by manufacturer.

While prior sessions were closed to all but contractors, the final session on Wednesday morning was thrown open to everybody. It was opened with a paper entitled "Business Policies Affecting Distribution" prepared by a committee of the California Electragists and presented by F. O. Sievers, executive committeeman from the Coast. Without mincing words, this paper, abstracted on page 17, shows very clearly the place of the contractor in the sales picture and the ways in which the rest of the industry will go to side-step him, yet all the time criticizing him for not doing a job.

W. R. Herstein, formerly head of an electrical wholesaling house in Memphis, and a leader in the National Electrical Wholesalers' Association, and now president of the Memphis Chamber of Commerce, reviewed the history of merchandising practices, making two very salient observations. In his paper, which is abstracted on page 12, Mr. Herstein first reaffirms his belief in the contractor-dealer as a merchant, as one who in spite of every obstacle has survived and is still the champion of quality merchandise. Second, and which is probably more important, the statement that "the jobber's best interest lies in developing the contractor-dealer as a satisfactory outlet." Mr. Herstein shows that the jobber can rely on no other outlet for appliance business and he urges that jobbers give more thought and attention towards improving the merchandising operation of the contractor-dealer.

I. A. Bennett, vice-president, National Electric Products Corporation, Pittsburgh, Pa., in another "back to fundamentals" paper (see page 14) entitled "Where Are We Going

25. Kenneth A. McIntyre of the Society for Electrical Development, faces a problem on his next shot. L. E. Mayer points to a hole in the window of the shelter house, while W. H. Sammis of the Commonwealth & Southern look on.

26. "Bob" Randall, chairman of the golf committee, and Judge Geo. Reinhardt, president of the Meadow Lake Country Club.

27. Ray Hawkins of the Appleton Electric Co. made a good shot or two and his partners are dampening a slight swelling of the head. From left to right, R. L. Wildauer, Arrow, Hart & Hegeman, Chicago; Walter I. Ferguson, Pararite Wire & Cable Co., and A. R. Cohen, Kansas City branch manager, Glasco Electric Co.

28. Walter S. Blue, vice-president and treasurer, Columbia Electrical Co., Kansas City (wholesaler); R. W. Hodge, Hodge Electric Co., Kansas City; Charles Burkholder, Burkholder Electric Co., Kansas City, and V. R. Despard, vice-president, Pass & Seymour, Inc., Syracuse, N. Y.

29. This fivesome was the last to come in. Henry Reinhardt, Frank Adam, Electric Co., St. Louis; "Bob" Randall, Randall Electric Co., Kansas City; H. A. Maggiore, Harvey Hubbell, Inc., St. Louis; L. T. Allen, Allen Electric Co., Tulsa, Okla., and G. W. "Jerry" Weston, secretary-manager, Electric & Radio Association of Kansas City.

30. Frank Haney of Omaha is trying for his par while G. S. Hayde, Kansas City electrical inspection department looks on and Leo McCormick, chief electrical inspector, and J. W. "Freide" Freidman, General Electric Co., indulge in sign language.

31. "Larry" Davis is intent on making his putt while Frank Murphy, Frank Seiler, Louis Schumacher and Gus Offenstein watch for the result with keen interest.

32. Louis Kalischer, W. H. Coleman, Wm. McGuineas and R. J. Nickles.



and What Must We Do to Get There," pointed out that there is only one place for a business man to go and that is "to a profit" and that with conditions the way they are the way to get there is through collective associated effort.

"An Appeal for Industry Understanding" by J. A. Fowler, was a rereading of the Trade Policy Committee report.

The concluding paper entitled "New Jobs for Electragists Putting Electrons to Work" was read by Richard M. Ryan, General Electric Company, Kansas City.

As the convention came to a close it was announced that Indianapolis, Ind., had been selected for the 1933 convention.

During the convention the local committee provided entertainment for the visiting ladies and arranged a dinner dance Monday night, the annual banquet Tuesday night and a golf tournament Wednesday afternoon.

The local Electragist committee, which was complimented many times on the smoothness with which all arrangements were made and the fine quality of entertainment was as follows:

General Convention: Chairman, Harry C. Evans; vice-chairman, W. J. Squire. Golf committee: Chairman, R. B. Randall; R. W. Hodge; W. T. McAuley; G. V. Dameron; Chas. Burkholder. Transportation committee: Chairman, F. E. Geiss; A. S. Morgan; Wm. Luce; L. G. Schumacher; E. H. Clark; A. Fromhold; W. T. Foley; B. R. Nelson, and A. H. Jeans. Sight-seeing committee: Chairman, E. H. Clark; W. T. McAuley; L. Schumacher, and Leo McCormick.

The assisting ladies' committee consisted of Chairman, G. G. Burkholder; E. L. Fickie; Wm. Wachter and Burl Martin. Ladies' committee: Chairman, Mrs. F. E. Geiss; vice-chairman, Mrs. W. A. Knapp; Mrs. W. J. Squire; Mrs. R. W. Hodge; Mrs. E. L. Fickie; Mrs. R. B. Randall; Mrs. B. R. Nelson; Mrs. L. J. McCormick; Mrs. W. T. McAuley; Mrs. G. V. Dameron; Mrs. L. H. Schumacher; Mrs. G. G. Burkholder; Mrs. N. E. Evans; Mrs. H. C. Evans and Miss Sullivan, hostess, Kansas City Chamber of Commerce.

ANNUAL BANQUET



33. Benjamin Electric Mfg. Co., C. B. Harlow, sales manager; O. C. Westberg, St. Louis office, and H. R. Heitzman, Dallas, Tex., office.

34. M. J. Whitfield, sales manager, Steel and Tubes, Inc., with G. W. Butler.

35. D. T. Wadsworth, vice-president and chief engineer, Wadsworth Electric Mfg. Co., Inc., Covington, Ky.

36. L. E. Fuller and James S. Mahan, Electrotrim, Inc., Chicago.

37. J. M. Warren, Kansas City district representative Central Tube Co.; Luther E. Reid, president, American Electric Co., St. Joseph, Mo., and Wm. G. "Bill" Campbell, representing Associated Standard Rigid Conduit Manufacturers of Pittsburgh.

38. Ray Hawkins, St. Louis representative for the Appleton Electric, Chicago, showing Appleton fittings to T. C. Mustain and Frank Haney, Omaha, and "Bill" Damon, Oklahoma City.

39. Pass & Seymour, Inc., Syracuse, N. Y., C. L. Nicholson, sales manager; V. R. Despard, vice-president, and Stanley D. Whifford, Chicago office.

40. National Electric Products Corp., Pittsburgh, Pa. Left to right, John S. Berry, I. A. Bennett, vice-president, R. C. Bennett, Chicago, O. A. Frederickson, commercial engineer, Pittsburgh.

41. Left to right, H. A. Roes, manufacturers' representative, Kansas City; E. J. Biller, president, Day-Brite Reflector Co., St. Louis, and W. F. Howe, manufacturers' agent, Kansas City, Mo.



President Mayer's Report*

WING to the retarded building activity, there seems to be a zealous desire on the part of the electrical contractor to obtain business irrespective of the fundamentals of sound business, selling his services to the consuming public for cost or below cost, and in each instance, praying that some situation will occur that will warrant additional work, wherein he may be in a position to take up the losses developed in the signing of the original contract. It seems hardly reasonable that a situation of this kind could occur, realizing the very small demand for building construction. How long this situation will last is hard to determine at this time, but it would seem to me that all of us should reflect on the conditions that are bound to develop from this form of business practice and refrain from competing with such unreasonable competition that ultimately will be the ruination of our business. It seems strange to me that contractors today can be influenced by the purchasing public to accept the figures that they submit as authentic in closing contract work when they know that the relative comparison between the selling price reflected by the consumer and the cost that the contractor may have, would not warrant any consideration of consummating contracts under such a condition.

Much effort has been applied and considerable time has been given by our Association in the promotion of the Goss Bill in Washington, for the purpose of eliminating unreasonable competitive conditions in the submission of estimates on government work. Unfortunately, due to the voluminous amount of work before the Senate, this bill did not come up for a final hearing, but I believe it very important that all energy should be applied in having this bill again presented as soon as our Congress convenes. The promotion of this bill, as you know, is for the purpose of eliminating shopping for bidding on government work after the original bids have been submitted and as indicated by our contracting fraternity over the country, it is the desire of the average membership to have this bill promoted and finally enacted into our governmental laws. It is essential, however, in order to get this bill passed, that every contractor have a responsibility in getting in immediate communication with his representative in Congress and Senate, advising him of the importance of the passage of this bill, the injustice that has developed in the sublet-



PRESIDENT L. E. MAYER

ting of the electrical work by general contractors up to and including this period, and the benefits that can be derived from the promotion and the final confirmation of the passage of the same.

The publication of *The Constructor*, which has now passed its sixth issue, has had the hearty endorsement of a great number of our membership. It is my opinion that this medium of publicity has conveyed to the contractors very important information which heretofore was impossible to convey.

Since the first of the year, the representatives of the Great Lakes Division of the National Electric Light Association called several meetings

with the president and some of our executives to work out plans, so that a better understanding could be had between the electrical contractors and the public utilities, on the distribution of electrical merchandise and the handling of electrical contractors' problems. As the entire subject was of a national character, it was recommended that the matter be referred to the N. E. L. A. rather than a division thereof. Since these meetings, we are advised that a special committee has been appointed by the N. E. L. A. to take care of these subjects with our association, for the purpose of coming to some agreement, whereby policies can be established and working arrangements set up which will be national in their scope. As our association is always ready and willing to receive any recommendations offered by the other branches of the industry, we are prepared to give as much time and attention as necessary in order to work out plans for the benefit of all concerned. It must be understood, however, that any meetings arranged in the future must be of an official nature, rather than unofficial as has been the custom of the representatives of the N. E. L. A.

It is very important that the contractors give considerable thought to the work that is being developed in connection with our National Electrical Code and the attempt to tear down the minimum standard which this code has developed. It is very apparent that if we are not mindful of the activities that are being developed to introduce substandard materials in the installation of electrical work, that a very serious situation will follow and the safeguard of the public interest will be greatly reduced. Non-metallic surface extension wiring was the most recent development along this line, and now efforts are being made to promote "concentric wiring." "Cheap" wiring is a short-sighted policy, but reducing the cost of good construction work is an entirely different matter and is always being considered by the electrical contractor.

*Abstract report to Electragist Convention Kansas City, Mo., Oct., 10, 1932.

The Jobber's Best Customer*

BY
W. R.
HERSTEIN
President, Memphis Chamber
of Commerce

DURING the quarter century that I was actively engaged in the electrical supply jobbing business it was my consistent complaint that the position of the electrical retailer was not receiving at the hands of the industry the consideration its importance demanded. It is true that in the early days of electrical merchandising, the average electric shop was not a thing to inspire respect and admiration. Neither, if one may judge by their photographs, were the early establishments of some of the present manufacturing giants of our industry. It is equally true that not every electrical contractor was by temperament or by training fitted to become a successful merchant. This did not justify our decision, however, that the businesses of contracting and retailing were necessarily repugnant to each other and could not be successfully combined, or that the retailing of electrical merchandise could be carried on at a profit margin of half what was required by retailers of other commodities. The lapse of years has not caused me to revise the opinion that the contractor-dealer was the logical outlet for electrical merchandise, and that we made the mistake of stunting the outlet in its infancy by undernourishment and maltreatment.

Twenty-five years ago, what we now term the appliance or merchandising lines were represented largely by the electric fan, the flat iron and the flashlight, followed at intervals by the chafing dish, the toaster, the curling iron, and allied devices. Up to that time the principal electrical products handled by jobbers and contractors had been wiring material, the discount on whose list prices had been unimportant, so long as the contractor felt that he was getting as favorable terms as his competitors. With the growing popularity of appliances, however, the importance of discounts in relationship to overhead soon developed, and there ensued a continuous battle between the dealer on the one hand and the manufacturer on the other, for greater and greater spread between the dealer's cost and his selling prices, with a great amount of ignorance on both sides as to the actual cost of retailing electrical or any other appliances. The inability of the contractor-dealer to perform successfully on inadequate compensation had two important results, namely that the electrical dealer was driven from the field with the stigma of failure as a merchant, and that the manufacturer turned his attention to non-electrical outlets, notably the department store, the hardware store and the druggist. Here again ensued two very definite



W. R. HERSTEIN

results; first, the manufacturer was forced to concede a wider spread of discounts, and, secondly, the quality of electrical devices started on a downward trend.

It was at this juncture that the central station began to take a prominent part in the picture. I hold no brief for the central station's activity in merchandising, but it is my firm conviction that this activity saved the day for the manufacturers of quality products. From the first, the operating companies stood for excellence in household appliances, and retrieved the rapidly disappearing market for devices having something besides cheapness to recommend them. Not only this, but the injection of adequate capital, competent merchandising men, and skilful advertising into the situation soon developed the public taste for these commodities to a degree that could not have been attained in years by any other interest. The exploitation of the business by the central stations, and the consequent popularizing of the lines, has worked to the benefit of everyone engaged in the industry. As a by-product of the lighting company's liberal advertising programs, not only has its own sales grown to mammoth proportions, but this growth has been reflected in the sales volume of the entire industry.

*Abstract address before Electragist Convention, Kansas City, Mo., Oct. 19, 1932

We have become accustomed, in recent years, to vigorous protests on the part of various non-electrical dealers, against what they are pleased to term the unfair competition of the power and light company in the merchandising field, though few, if any, specific instances of unfairness have been exposed—the claim that it is unfair apparently being supported chiefly by the fact that it exists at all. Legislative enactments have been sought, and in some cases obtained, against this supposed illegitimate competition. It is reasonable to assume that the proponents of this agitation have in mind the belief that if, now, the power companies are excluded from the field, the retail interests will fall heir to the volume of sales which the power companies have built up. In my opinion, this is a false hope. I believe the business created and enjoyed by the central station will simply disappear, and even the volume resulting to the retail trade in general as a by-product of central station publicity will be considerably impaired.

The electrical contractor-dealer has long since reconciled himself to the competition of the non-electrical store. No longer does he hope, or even wish, to have a monopoly of the field, realizing that the exploitation and popularizing of his specialties is a very large task, and that he will gain more by the cumulative efforts of many competitors than he could possibly accomplish within his own ranks. The non-electrical opponents of power-company merchandising might as well adopt this attitude themselves. These companies are rendering the industry a service which if discontinued, would be missed, as much by this class of retailers as by any other. Whatever may be said of the practice, its good features should be recognized and capitalized intelligently, and not combated.

Interests Identical

If my reasoning is correct, it would seem to me, therefore, that the part of wisdom, for the contractor-dealer, is to accept the situation as he finds it, and endeavor to accommodate himself to it. I believe now, as I have for many years, that in respect of electrical merchandising, the interests of the contractor-dealer and the electrical supply jobber are identical, for while the jobber's salesman still religiously includes non-electrical customers in his calling list, he finds this a most difficult class of business to control satisfactorily and with profit to the house. The average hardware dealer consistently refuses to buy at regulation discounts, is not loyal and has a strong liking for off-brand makes. The department store's overhead is so enormous that the discount the jobber can usually offer him is inadequate, besides which he has a habit of disregarding nationally advertised prices which is disconcerting to the jobber's other customers and embarrassing to the jobber himself. The chain store's buyer is usually located in a distant city and not easily accessible. Central station business, while easier to handle, usually goes to the manufacturer direct, due to the intense competition among manufacturers for a customer whose purchasing power attains the enormous proportions of the holding company.

It seems clear to me, therefore, that the jobber's best interest lies in developing the contractor-dealer as a satisfactory outlet.

With the practical cessation of building programs and high line construction, the jobber's merchandising lines

must be more heavily depended upon, as is also the case with the contractor-dealer. The need for mutuality of effort is clearly indicated, and although the jobber's function is primarily that of warehouseman, and his margin of profit covers little more than the cost of warehousing, shipping and accounting, the jobber's salesman must perform become now something else, if the possibilities of contractor-dealer outlets are to be properly developed and the business to be enjoyed by the electrical jobber.

No industry possesses brighter, more aggressive, or more adaptable salesmen than that of the electrical supply jobber. The range of his technical and practical knowledge is little short of amazing. Surely it is not a task beyond his ability to add to his versatile usefulness the role of counselor on retail sales.

Furthermore, the house itself might well create a department for this purpose, with a department head whose business it will be to see that the information and experience gained by each individual salesman shall be collated and edited into such shape that every salesman shall become a finer expert in retail merchandising and every customer shall the more easily have access to this general aggregate of knowledge.

Experience of Other Merchants

There is ample warrant for this. Most of my listeners are old enough to have witnessed the emergence of the grocery store from the stage of the open cracker barrel to its present state of neatness and sanitary safety. We have seen the dingy drug store with its sloppy soda fountain transformed into a place where bright lights compete with plate glass and polished nickel. Who of us, contemplating the present butcher shop with its white enamel cases and its frosty refrigerator coils, does not shudder at the recollection of the place where we used to buy our meats? Even the humble barber shop has not been overlooked in the general transfiguration. And all to one purpose—to entice the customer into the place.

But this has not come about through self development on the part of the individual. Back of it all has been, in the case of each industry, a master intellect; a gathering of many minds to study the problem of sales appeal, of attractiveness that really attracts; of efficiency in turnover and accounting as well as in salesmanship. In the case of the chain store, experts in store-arrangement and its accompanying details are easily at the command of their enormous resources. In the case of the independent dealer, such help can only come from the manufacturer and the jobber. The manufacturer must recognize that his task is not completed when his goods have reached the jobber, just as the jobber must understand that he is not through when his shipment goes to the retailer. The sale is not complete until the article reaches the consumer, and its consummation is the joint responsibility of all three.

Believe me, gentlemen, when I say that my faith in the electrical contractor-dealer as a merchant has not been shaken during the period through which I have watched his development. As the stepchild of the industry, the very fact that he still survives after the three most disheartening years of our business history augurs well for his continued survival, and carries with it the inference that there must be merit to his claim for a place in the economic picture.

Where Are We Going And What Must We Do To Get There?



I. A. BENNETT

in the effort to combine them in the control and use of electrical current for the public.

If this is so, then, what is this first principle we must go back to? Is it not a question of how to do these things that we have to do so that we may obtain the greatest number of customers in a given area? Therefore, is not the first consideration for a new prosperity, for a new order of things, a knowledge of the elimination of waste, of simplification of standards, of a better understanding of what there is to do?

If we are going to be a party to this reconstruction story we hear so much about, it would seem that we are going to require the greatest amount of knowledge, the best thinkers and that we are going to do something only by taking the tools we have, the brains we have and develop out of our past experience something better, something more attractive that the world wants and that the world can get easier, quicker and with less cost.

Then, if these things are so, is it possible for us to go our individual ways, each of us follow entirely his own inclinations and selfishly hold to our limited, narrow confines without laying ourselves wide open to the competition of mistaken ideas?

The government has made a tremendous effort to increase building. Millions have been spent and five hundred million more of untouched work is still in the offing, but has this accomplished anything? Has this made a profit for the manufacturer, for the contractor? Therefore, regardless of what the picture is, is it not a fact that the settlement of our troubles does not lie in volume, and is not the big problem one of making a profit?

*Abstract paper presented at Electragists Convention, Kansas City, Mo., Oct., 1932.

14

BY I. A. BENNETT
VICE PRESIDENT
NATIONAL ELECTRIC
PRODUCTS
CORPORATION

We can put up these big buildings, we can furnish material and labor, but unless labor makes a profit, unless the manufacturer and the contractor make a profit, a surplus over their bare living, are we really doing anything toward reconstruction?

It is very evident that there is only one place to go, one thing to do, one answer to our problem, and that is, to make a profit. Profits only will maintain a business. Profits only will build new

homes, provide luxuries, open mills and set men to work.

Whether we like it or not, competition will force us to take a profit.

We know that today we are confronted with huge agencies that are prepared to take a man's piece of ground and furnish him thereon a house, complete inside and out, or remodel, rebuild and refurnish the house, but these huge agencies are organizations, the cooperative idea of many industries working to one purpose.

Only a short time ago we read a published statement by an electrical inspector that told of the difficulties in his daily work in dealing with contractors not financially responsible, not properly guided and brought out the point that chain contracting might be a good thing, that it would establish definite procedure, a definite policy, definite lines of dealing with material and labor, definite recognition and maintenance of standards; that, a chain contracting organization with a well established policy would not permit substitution and fraud, would make the inspector's life easier, make the insurance people happier, safeguard the owner and make the public utility glad to tie to the job.

Is this kind of competition going to force us to some definite plan of organization, local and national, which will bring us under a definite policy of operation that will give us free, open competition and a recognized profit procedure?

We have another competition, that of the public, the desire to do their own wiring. We find that pliers are more plentiful today than ten years ago, that other mechanical industries are competing and must we wait to be forced into a procedure of organization by reaching the point of being driven out of business by this class of competition?

If, in the first place we find there is only one place to go and that is to a profit and for a profit, and if, in the second place we want to know how we are going to get there, is it not through organization, local and national, and by coordination of ideas and thought, by development of procedure and policy and protection of the weak by the strong in order that the strong may be strong?

Electrical Contracting, November, 1932

Report of Trade Policy Committee *

THIS report deals primarily with the problems affecting the trade and industry relations of Electragists. These problems now stand in bold relief because of the present economic disorder.

Standards, principles and ethics, in the past twenty-four months, have been abandoned in a mad scramble for survival and while the debacle has touched industry generally, the chaos in the electrical field has been pronounced.

Our Association, representing the electrical contracting branch of the industry midway in the depression, adopted Trade Practice Conference rules hoping to stem the tide of demoralization, but we are up against human nature in the raw. Ethical methods of competition have been abandoned. Inferior workmanship and shoddy materials have been employed to offset contractual losses. Construction on public work, amounting to millions, has been blindly snatched from the grab bag with tremendous losses.

During this period the distributor, manufacturer and central station have failed to excite an unusual amount of admiration by their practices, some of which have become alarming.

Many distributors have lost their sense of proportion. Indiscriminate distribution now seems a settled policy. As the contractor-dealer's purchasing power diminished the doors of jobber's warehouses have been thrown open to all who cared to enter. As the demand for standard approved wiring material slackened, wholesalers offered non-standard, unapproved merchandise, whose only recommendation is price appeal. Credit gambling has become the thrill of the era. The mortality budget among contractors has been more than balanced by the cultivation of a new crop.

The manufacturing branch of the industry seems demoralized. No program of merit suggesting an approach toward breaking down existing market stagnation has emanated from this source. Courage and resource have been lacking. With opportunity at its disposal this group has made little progress toward simplification in

wiring materials, although the responsibility is marked.

The Industry charges the policies of the utility with many of its troubles. Retailers complain about unfair competition, maintaining that protected revenues are used to absorb merchandising losses and turn to legislation for the cure. Contractors insist that high energy rates are a barrier to adequate wiring and protest the existence of power company wiring and repair departments. Jobbers contend that holding company control has resulted in national buying for syndicates, wiping out a large part of their volume. Manufacturers admit their helplessness in relation to industry cooperation, because of the domination of the utility groups who are in a position to dictate their policies.

If the foregoing is anything like the situation today in the Industry, then the need for house cleaning is not open to argument. While it may be presumptuous for the Trade Policy Committee to initiate steps toward a remedy, the following points are raised for Industry consideration:

National Electric Light Association to outline definite national policies concerning—

- a. Its contractor and dealer relations.
- b. Its support of the National Electrical Code and of orderly industry procedure.
- c. The subscribing of its member companies to such policies.

Local Utility Companies to sponsor closer relations with contractors and dealers with a view to—

- a. Mutual understanding on wiring policies and standards.
- b. Mutually acceptable plans for the promotion of range and water heater sales.
- c. A permanent conference program to create and maintain future relationships.

National Electrical Manufacturers Association to inaugurate a satisfactory conference arrangement to provide—

- a. Mutual study and understanding on codes, standards and legislative programs.
- b. Cooperative study of marketing problems.
- c. Constructive campaign toward simplification of wiring materials.

National Electrical Wholesalers Association to work for better understanding on policies of distribution, particularly—

- a. Arrange for studies of changing distribution conditions affecting jobber and contractor-dealer.
- b. Correct unfair credit policies which place a premium on incompetency and financial unreliability.
- c. Cooperate in an effort to purge the market of sub-standard and unapproved materials and devices.

Association of Electragists, International, to continue a militant attitude toward all trade abuses, and to direct its fullest support to all constructive measures for sound industry cooperation, by—

- a. Urging contractors and dealers to recognize the fundamental economy underlying the established channels of distribution.
- b. Recommending the adoption of such protective measures as sales control ordinances, quantity surveys and approval bureaus.
- c. Influencing the passage of legislation to prevent bid peddling on public work.
- d. Maintaining an untiring struggle to defeat onslaughts now being directed against the integrity of the National Electrical Code.
- e. Prevailing upon the other groups in the Industry to abandon such practices as customer competition, indifference to trade relations, credit abuses and the promotion of sub-standard materials.
- f. Promoting the ideal that the branches of the Industry are inter-dependent and that enduring benefits can materialize only by an acceptance of this principle.



J. A. FOWLER

*Presented at Electragists' Convention, Kansas City, Mo., Oct. 10, 1932

Local Rules vs Code Uniformity

BY GEORGE ANDRAE, MILWAUKEE, WIS.



GEORGE ANDRAE

Acceptance of the N. E. Code by ordinance for every community without changes or special rules, would mean its adoption as a *maximum* and not as a minimum standard, and would be definitely lowering the present day standards for wiring in a majority of our cities. The N. E. Code is necessarily designed to cover all conditions from the shacks of a mining town to the monumental buildings of a congested city. There must, therefore, of necessity be a certain number of special rules supplementing the N. E. Code requirements, since these are a minimum standard.

The N. E. Code is purely a fire code and is not primarily concerned with the question of safety or personal injury, as is the National Electrical Safety Code issued by the Bureau of Standards. For this reason also, there must of necessity be special rules supplementing the N. E. Code requirements, particularly in those cities or states having municipal or state inspectors whose duty it is to check up on both life and fire hazards.

Let us next consider the true situation with respect to special local rules or requirements over and above the N. E. Code. Unfortunately, in some places the local special rules have gone so far as to restrict wiring to only one or two types, which may be the highest and best standards for certain classes of buildings but economically unsound for other essential building needs, resulting in the slowing up of the contractors' own business and a gradual dissatisfaction in public opinion. Such conditions have grown out of too narrow local viewpoints and not because of any selfish aims of the sponsors of these local rules. Eventually, however, the accumulation of too many narrowly restrictive local rules reacts against the interests of the entire industry nationally. These

exceptional cases are seized upon by interests who would rather have little or no restrictions to wiring methods, and are used to attack all efforts of any localities to protect their communities with regulations above the minimums permitted in the N. E. Code.

Two definite breakdowns in orderly development of our Code regulations are growing out of these uncoordinated efforts of local regulatory bodies to write special rules according to their local views.

First—manufacturers, who frequently have found special local rules breaking down standardization and efficient quantity production of their products, as well as closing their markets in certain places for products which are recognized as sound and desirable generally, have initiated a program to eliminate so far as possible all local special rules and make the N. E. Code apply without modification everywhere.

Secondly—utility interests have seized upon the lack of coordinated local Code thinking as indicating that the National Electrical Code does not meet industry needs, and that less "*code making*" should exist, and that they should be free to influence local acceptance of wiring as they may see fit to prescribe in various territories.

There is also a constant tendency towards lowering established standards, through pressure of commercial and special interests. It is here merely necessary to point out that as we find the Code departing more and more from its sound fundamentals in order to permit the introduction of lower standards sponsored by special interests, we are certain to see an increasing demand from many localities for special local requirements beyond those of the N. E. Code, to protect their communities against such lowering of the safety bars. This very natural effort of local code interests to protect themselves through special rules leaves a vulnerable point of attack by those who are advocating strict adoption of the National Electric Code without changes. The importance of uniformity of rules is so desirable that it is easy to attack the many special rules throughout the country, because of their lack of uniformity. Such uniformity in "*above the minimum*" regulations is just as essential as the N. E. Code itself, if the needs represented in these special rules are to be generally recognized and in time influence the N. E. Code in the development of our art.

Our organization could perform a most valuable service to the industry if we were to establish a committee of electragists, made up of representatives from fifteen or twenty cities throughout the country, to correlate some of these fundamental special rules.

That special rules will always exist is inevitable, and that they will be needed more and more if the National Electrical Code breaks down is certain. If we can initiate steps looking toward the development of uniformity of such special rules, we will greatly strengthen the maintenance of sound standards and undoubtedly will have an important influence in the adoption of such advanced code requirements in the National Electrical Code itself.

*Abstract of paper presented before Electragist Convention, Kansas City, Mo., Oct. 10, 1932.

Sales Minds vs Business Sense*

PREPARED BY
A COMMITTEE
OF THE
CALIFORNIA
ELECTRAGISTS
AND
PRESENTED BY
F. O. SIEVERS

T is the purpose of this paper to show that the entire electrical industry suffers above all else from the ideas of too many "sales-minded" men, well enough versed in theories, but lacking in practical business sense, and in some instances, one cannot but suspect, insincere — at least inconsistent.

For years manufacturers, jobbers and central stations have told us what unsatisfactory outlets we are, that we refuse to tie in with their plans. Might not the reason be that we know our own business better than they do. Might not the reason be that we could not see wherein we could support our effort by enough profit to pay its freight. We know our own business problems, and, unfortunately, they either do not care to know or will not go to the trouble to learn them. We urge, therefore, that Electragists never cease to remind the other branches of the industry that we are all in business to make a net profit. We cannot but look upon many of their sales



FRANCIS O. SIEVERS

plans as designed to get the business for them at a profit, but devoid of any semblance of either policy or margin that recognizes our place in the order of things and of our need for a profit too.

As Electragists we are good business men only when we confine our major efforts to activities that make us money. We find no difficulty in employing the sales or engineering talent necessary. We can do the selling and promoting, the co-operating that the suppliers and the utilities want us to do just as soon as adequate margins are provided and they cease themselves to sell directly to our customers.

And as for being eliminated from the picture, we have still more independence in our branch of the industry than exists in any other. We are fighting stock or we would not brave the hazards of individual business. These fighting qualities can be put to use by all branches of the industry by proper co-operation. How much better off would the industry be if all of this fight Electragists have to put up were to be

addressed for the industry upon the market instead of being dissipated in fighting within the industry.

Recently one of the prominent utility sales executives commented to the effect that "the furniture dealers are great merchants and a source of strength to the gas appliance manufacturer, but the one trouble with the furniture dealer is that he always insists on a profit."

This casual comment contains three significant ideas. First, the manufacturers and central stations do not recognize the need for others to make a profit. Second,

*Abstract of paper presented at Electragist Convention, Kansas City, Mo., Oct. 12, 1932.

they fail to see that they can enlist these fine merchants and the Electragists just as soon as they provide adequate margins for others besides themselves. Third, good business men operate these furniture establishments and keep out of the electrical appliance business because the latter is profitable to no one but the manufacturers and central stations.

Utility men often complain that regulation limits them to a narrow margin of 8 per cent, but no one fails to recognize that every cost is charged off and reserves are set up for every contingency and that this 8 per cent is all net. Most of them will admit that regulation has been a good thing for them and has eliminated a lot of cut-throat competition brought upon them by the sales-minded managers of other companies.

What brought regulation was the unfair advantage the utilities formerly took of the public. Now we are asked to enjoy the spectacle of utilities advocating cheap wiring in the home, but in the building of their own power plants, warehouses and office buildings using the most lavish and expensive construction. Surely such utilities must appreciate that we who see these things feel that if they are consistent in their desire for cheapness that it should begin at home, and thereby also make electricity cheaper so that we may help them sell kilowatt hours more easily.

When it comes to the sales complex, manufacturers probably exhibit more stray distribution currents than any other branch of the industry.

Beginning with sales agreements, perhaps every Electragist will have noticed that most of them attempt to commit us to limited operations or scope, but carefully avoid committing the manufacturer to anything.

As to methods of sales, must manufacturers sell lighting fixtures, or other devices, direct to new buildings because of the fear that some other manufacturer might get the business through the contractor who secures the electrical work? Cannot the manufacturer see that some manufacturer will get the business at any rate, and that he can get his share of the business through the contractor just as well as through direct selling, and in so doing build up and stimulate the activities of contractors? Some of our best manufacturers want our business and support but expect us to look silently on while the mail order houses sell their products. Either they do not think much of us or they do not think at all.

With motors and control the manufacturers, who themselves find it necessary to add 100 to 200 per cent to their costs to secure sufficient gross margin to cover overhead and cost, expect us to "make money" on a 17 per cent gross. Surely we must be supermen to run our business on less than 17 per cent and get a net profit, when they, with all their talents, require so much more.

Motor dealers of the Pacific Coast have been looking for some one to give logical and sound reason as to why machinery manufacturers, who are privileged to sell all makes of motors and who exploit no one make, are entitled to a greater discount, while we are limited to the insufficient margins and expected to sell the products of one manufacturer exclusively and aggressively.

A disturbing activity of the two larger manufacturers is their chain of repair shops established on the premise that they are needed to handle complaint work. The activities of these shops go far beyond such an idea. If manufacturers justify these shops to themselves on

a competitive basis, that is, to hamper the activities of smaller manufacturers, they do so at the expense of their own dealers.

All over the country there are examples of Electragists discontinuing selling arrangements of long standing. This is an indication of what old friends do when finally they lose patience. Many a shop of 100 per cent loyalty to one manufacturer's products is changing the emphasis of its advertising to its own products. Many are entering manufacturing of articles of their own.

Merchandising of appliances, it is to be expected, suffers more than anything else from the great sales mind-over-matter complex. It suffers most from the vain attempt to make it successful despite margins which forestall any hope of ultimate success. There have been so many failures of appliance merchandising and so few successes that it would seem the industry would make some honest inquiry into the fundamental causes for such a situation.

The associated wholesalers feel as a matter of principle that the organized contractors should give them a preference. Yet this does not go very consistently with sales policies that result in the wholesalers dealing direct with industrials, big buildings, schools, institutions, etc. When viewed impartially, how can a wholesaler expect contractor support while bending every effort to encourage industrials, office buildings and others to establish an electrical department and do their own installation work?

Classification of Trade

From a purely economic basis alone, it is too costly to wholesaling to endeavor to cover all classes of trade by duplication of the efforts of its dealers. Established policies as to classification of trade and a determination of which classes should go through contractors and motor dealers would materially reduce wholesaling's overhead costs.

Frequently the wholesaler may protect his friendly contractor, but considers it "open season" to cut prices and bid direct if some other contractor is on the job. The result is just the same as if no protection were given anyone, for the wholesaler's friendly contractor is bound to be caught in the cross fire of his competitor's friendly wholesaler. It is no wonder that much contractor support has been thrown to the small independent jobbers.

Whether electrical contracting, merchandising, motor and industrial contracting survives is a matter of opinion. Certainly, it will undergo changes. But the chances are even that in some form it will emerge, because after all, there must be installation and there must be merchandising of the products of manufacture.

When the manufacturers, wholesalers and central stations provide adequate margins, and limit their activities to their natural fields of endeavor, they will be able to lean on us and other merchants for distribution. Then we will make use of our local friendships and personal contacts, our home town establishment and our intimate knowledge of the people we serve and the market they represent, to sell the products and ideas of our associates in the industry. Then we will have sound credit, a recognized standing in our community, will maintain creditable places of business, will co-operate satisfactorily, do our part in advertising and promotion and carry adequate stocks.

Merchandising Survey Report*

BY

ROBERT J. NICKLES,
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MERCANDISING
SURVEY

BECAUSE of many complaints on the part of A.E.I. members, our executives at a meeting held in New York early in January of this year, commissioned me to institute a nation-wide survey for the purpose of ascertaining conditions as they applied to the merchandising of electrical appliances, both in and outside of the electrical industry.

In establishing such an electrical merchandising survey, your committee undertook to outline a broad scope of questions which would show the various factors affecting independent retailers as they exist today. Briefly condensed, the information sought was as follows:

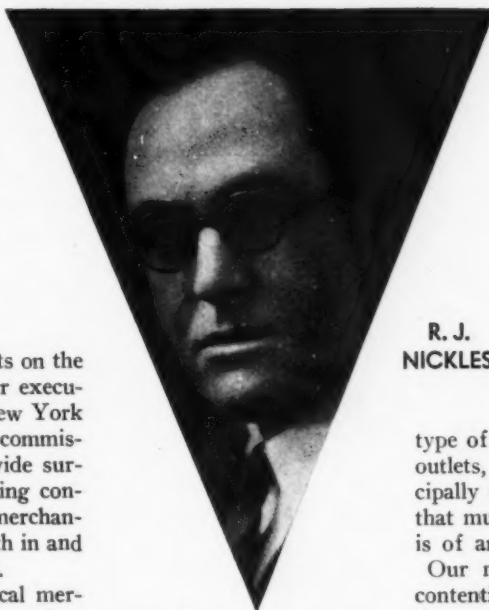
1. Who are selling electrical merchandise today?
2. Percentage of sales by various classes of dealers.
3. What classes of dealers feature high quality merchandise?
4. What classes of dealers feature low quality merchandise?
5. Is utility merchandising generally considered unfair competition?
6. Reasons why utilities are considered unfair.
7. What is the remedy?
8. Is utility competition extending into the wiring field?
9. Are there satisfactory contact points between utilities and contractor-dealers to bring about better co-ordination?
10. To what extent are chain stores menacing the smaller independent dealers? Why?
11. What is the effect of competition from department stores? Other non-electrical stores?
12. To what extent are present merchandising conditions affected by economic conditions?
13. In public interest, what is the best program to bring about the most satisfactory electrical service?

It then became necessary to carefully analyze the membership of the A.E.I. throughout the entire country, in order that the replies would represent those contractor-dealers who might be considered truly representative of our industry. It seemed advisable to contact only such members as those who were operating merchandising departments in conjunction with their contractor business, but in a few instances were made with members who were operating merchandising business exclusively.

The amount of information acquired through the number of questionnaires and letters sent out, was very satisfactory, and it is fair to assume that the data collected represents a fair cross-sectional viewpoint of the industry.

*Abstract report submitted to Electragist Convention, Kansas City, Mo., Oct. 10, 1932.

Electrical Contracting, November, 1932



R. J.
NICKLES

Chain Store and Department Store Competition

The returned questionnaires revealed the very serious situation existing throughout the country with respect to the volume of business in sub-standard merchandise being done by chain stores, hardware stores, department stores, and other non-electrical dealers.

It is apparent that the type of merchandise being sold by these outlets, with few exceptions, is sold principally on the basis of price appeal, and that much of the merchandise so offered is of an inferior quality.

Our members are unanimous in their contention that the chain stores are for the most part selling an inferior grade of merchandise, at a price which is making it difficult to attract buyers for standard lines of quality.

Analysis of the percentage of sales made by the various classes of dealers reveals the following percentage of sales made by the various types of dealers:

(a) Electrical contractor-dealers	22.9%
(b) Local public utilities	28.4%
(c) Chain stores	12.7%
(d) Department stores	12.0%
(e) Hardware stores	13.7%
(f) All other outlets	10.3%

From the best information obtainable, it would seem that the better class of merchandise is being sold principally by electrical contractor-dealers, utilities, and by the better grade of hardware stores in the larger cities. The lower grade, or substandard merchandise, so far as we are able to determine, is being featured by chain stores in general, specialty stores, which feature automobile, radio and electrical supplies, and the hardware stores and general stores in the smaller communities.

Utility Merchandising Activities

Ninety-six per cent of the dealers contacted expressed themselves as definitely favoring the elimination of the public utility as a merchandising competitor. The reasons advanced for this attitude were many and varied. Some of the more important ones were: Trade-in allowances, premium offers, long terms of payment, small down payments, unscrupulous high-pressure salesmen, utility executives who are not sympathetic to dealer cooperative plans, discrimination against certain contractor-dealers, failure of utilities to keep separate merchandising costs, free lamp renewals, direct solicitation by employees whose salaries are paid by operating departments, exclusive selling franchises demanded and secured from distributors and manufacturers of appliances, special inducements made to consumers to influence sales away

from the contractor-dealer and to the utility, using the argument that the consumer will obtain better servicing in the period following the sale, and in many instances serving notice on the consumer that they will service only appliances and equipment purchased directly from the utility, operating free repair departments, trucking and delivering equipment and appliances on trucks used by repair and construction departments without charging this expense to cost of merchandise, and for many other reasons. The dealers cited without exception that they were unable to meet the small down-payment terms of utilities.

Construction Activities of Utilities

Our survey undertook to acquire a general knowledge of prevailing conditions and policies outside of the merchandising sphere. Since the strictly contracting element in our business is so closely related to the merchandising factor, considerable time was devoted in obtaining information concerning the utility attitude regarding the installation of electrical work and appliances. It was particularly gratifying to learn that utilities for the most part refrain from entering the construction field. With a few exceptions, the utilities have abrogated the wiring field and are content to leave this work to the contractor-dealers.

Remarkable progress is being made by individual State associations in clarifying many misunderstandings and controversial subjects through the medium of joint committees representing the contractor-dealer and utility branches of the industry; and in most cases it has not been at all difficult to convince utility operators that the installation of all electrical work is strictly the function of the contractor-dealer.

A number of complaints were received with respect to the attitude of certain utilities regarding their construction activities. These for the most part, could be traced directly to policies which have been set up by holding companies controlling these utilities. In certain territories some utilities have taken it upon themselves to submit prices to the consumer for the installation of ranges and other heavy-duty appliances which include the installation cost of service requirements, together with meter boxes, etc., based upon employment only of the cheapest type of contractors who will take the work at merely day's wages. The dealers in these communities are complaining strenuously over this attitude on the part of the utilities and are praying for relief. Since this practice was inaugurated by these utilities, the cooperative spirit of the dealers has been jeopardized and it would seem that much constructive work must be done in these localities to alleviate the feeling of antagonism which has developed as a result of this practice.

Complaints have also come in from other sections, wherein the contractor-dealer complains of utility commercial department representatives taking it upon themselves to set prices for constructive work, and at prices which the contractor-dealer cannot meet and realize a profit. This practice often causes the representatives of utility companies to go out and turn the job over to the irresponsible type of electrical contractor, who in most cases has very little overhead expense, and creates the impression that the better type of contractor-dealer is charging too much for his work.

Reports received from many electrical contractor-

dealers indicate a changing attitude on the part of utility officials with respect to their willingness to meet contractor-dealer groups at frequent intervals for the purpose of bringing about a better coordination of interests. Many dealers complained that utility officials will not meet them to discuss their common problems, and in some instances efforts made by the contractor-dealers to meet the utility representatives have been ignored. However, this situation in most cases, is rapidly being corrected.

Effect of Present Economic Conditions

Almost without exception, our members specify that the present economic situation has retarded the sale of electrical merchandise from fifty to sixty per cent. This report is comparable to results obtained in other industry surveys and must be taken as being fairly accurate.

Kansas and Oklahoma

Realizing that the merchandisers of electrical appliances throughout the country are watching the results being obtained in the states of Kansas and Oklahoma, as a result of the passage of laws in these states prohibiting the utilities from merchandising, a very careful and painstaking survey was made.

Almost without exception, the electrical contractor-dealers contacted in these states expressed a pronounced approval of the present law. Admitting, however, that due to the unusual economic conditions surrounding the sale of almost every commodity, the true results cannot definitely be ascertained until such time as merchandising activity returns to a normal trend.

The utilities of Kansas and Oklahoma in most cases resigned themselves to the new laws and entered into whole-hearted cooperation with the dealers. In a few cases, certain utilities set about to antagonize the merchandising laws through the medium of becoming interested, through their officials or former employees, in independent outlets* for the sale of electrical merchandise, and by soliciting the aid of the press, to make the new law unpopular.

In the readjustment of the sales outlets for electrical merchandise, it is true that many irresponsible dealers entered the field in competition with old established concerns. Men who had previously been working in the capacity of salesmen for utilities, immediately opened up sales outlets. For the most part these individuals have discontinued their operations, and judging from recent reports, industry conditions are rapidly becoming stabilized.

Considerable unfavorable publicity concerning the effectiveness and feasibility of the present laws has been launched by the utility interests in an attempt to make the new plan appear in an unfavorable light throughout the country. Even the press associations of Kansas and Oklahoma have gone on record as opposing the new laws, presumably, because of the loss of the large income resulting from utility advertising. I am not presuming to either uphold or condemn the effectiveness of such legislative action in other states, but am prone to suggest that before final judgment is passed, we withhold our opinions until such time as these laws will have demonstrated whether or not the utility can best function through the medium of dealer merchandising outlets that have established stability.

builds big volume in city of 9000

The city of Idaho Falls, Idaho, has a population of 9,000 and there are only a few small villages in the immediate territory surrounding it. Nevertheless it furnishes a field of activity for one contractor and dealer from which it is said that he derives a gross business in prosperous times running close to \$150,000 annually, though very much less than that at the present time. This record presupposes activities of a varied character and real merchandising ability. He is found today with an organization of 11 people all told—three salesmen, five wiremen, two service men, besides himself. He has let no one go during the depression.

The firm is the Idaho Falls Electric Co., and its proprietor is W. Bauchman. While he acknowledges that times are tough, it is with no undertone of fear. He is not only anticipating the return to business conditions as prosperous as they have been in the past, considering the present conditions only as a phase, but he is energetically pursuing the same selling methods now that he uses in good times, getting what business he can and keeping his foundations solid in every direction.

His main activities are as follows:

- (1) **ELECTRICAL WIRING**—five wiremen employed, at present largely small work, and remodeling.
- (2) **APPLIANCE STORE**—Large, with attractive stock, well displayed, and showing lines of wiring supplies and materials as well as appliances.
- (3) **MAJOR APPLIANCE DEPARTMENT**—including Refrigerators, Ranges and Radio, with three salesmen out all the time.
- (4) **RADIO** service man who is out on service work and at the same time promoting both appliance and wiring sales.
- (5) **REFRIGERATION** service man who operates in the same way as the Radio service man.
- (6) **AGENCY** for and servicing Neon Signs.

Take first the appliance salesmen. These men are paid salaries. In good times they earn a bonus over and above their salary. But even at present, they are assured of a living. Mr. Bauchman is a firm believer in the principle that a man cannot put his heart into his work if he is worried over the fact of whether or not he is going to make a living for his family. In these times, especially, he believes it is true and has removed the pressure from their minds which is driving so many commission men to the wall. His salesmen make active house to house solicitations and follow up leads that come in from other sources.

Electrical Contracting, November, 1932

A prolific source of leads are the two service men. All told he now has out in his territory about 600 radios and 325 refrigerators. The service men make annual check-ups on all of these machines. It takes the refrigerator service man about three weeks in the Spring simply to check the machines, oil them and see that everything is operating satisfactorily. This check-up is free, but it pleases the customer and it gives the company's man access to the premises and he is not only on the lookout for opportunities to talk about wiring and the need for additional outlets, etc., but also to find out the names of any of the customer's friends or relatives who are in need of electrical work or are in the market for any kind of an appliance.

Similarly with the radio service man. He takes about the same time in the Fall to go around to every radio customer, blow out the set, check the tubes, make any small adjustments that will better its operation and above all keeps his ears open and wits engaged in running down prospective business as in the case of the refrigeration man.

In so far as possible these service men carry the inquiry along to the point where a request is made for a salesman or estimator to call. Then the information is turned over to Mr. Bauchman to be passed on to the salesman or to the wireman as the case may be. For instance, the refrigerator service man was checking a refrigerator recently and heard of a neighbor of the customer who was thinking of buying an electric range. He immediately reported this fact to the range salesman who rushed out and sold the range before the service man was off his job next door.

Mr. Bauchman believes this periodic checking and rechecking of all appliance installations is one of their most prolific sources of getting business, both wiring and appliance, and the beauty of the system is that as the years pass and the contractor-dealer gets more and more of these appliances out, his contacts with the public become wider and stronger and an ever increasing amount of new business is constantly derived from that source.

In connection with the Neon sign business, Mr. Bauchman works it somewhat differently than most contractors. While he has the agency, he does not expect to sell many signs outright. He has found it more profitable to put them out on a rental basis. This requires considerable more capital than straight sales, and in fact he says that he has \$8,000 to \$9,000 tied up in signs. But with the necessary capital to carry through, he thinks there is more money in it this way. They also do the servicing on the signs they put out.

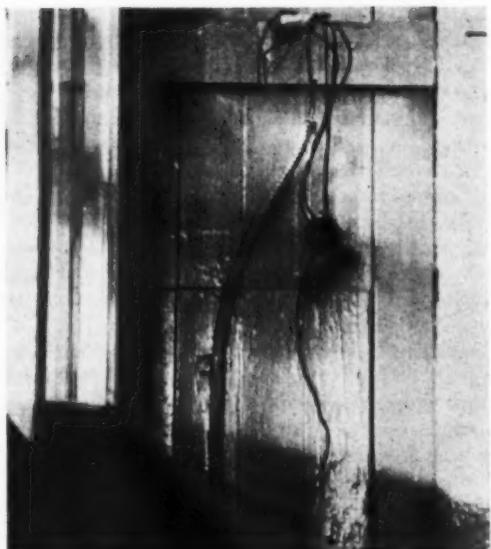
Whatever the success he has had in selling his services as a contractor and a dealer, Mr. Bauchman wishes to give due credit to the local office of the Utah Power Co. which he says is cooperating very well with the dealers. He says that they seem more alive to the dealer's interest now than ever and when the latter makes a sale they are behind him with all the service they can offer.



W. BAUCHMAN

Editor's Note: As a part of its program for speeding up reinspection ELECTRICAL CONTRACTING has arranged for photographic evidence of wiring conditions in a number of cities, to make it clear that in every city there is a very serious situation existing that must be corrected. Although not labeled the pictures in the August issue were from the Boston area. Other cities will be represented from time to time.

why portland needs reinspection



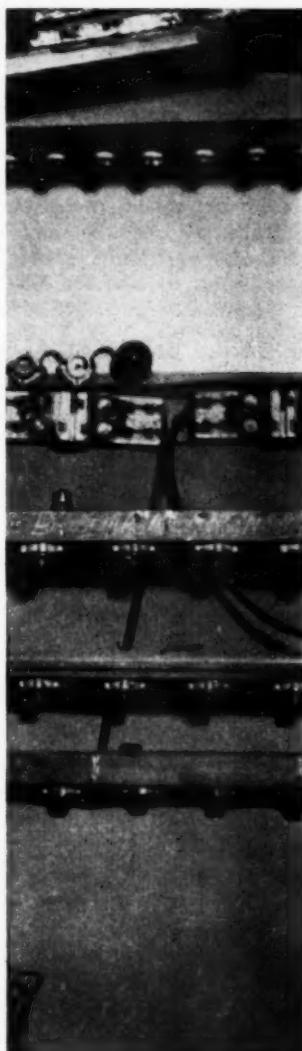
These photographs are typical of the conditions being found every day in Portland, Ore., by Inspector Gray who is now devoting all of his time to reinspection.

An abandoned lighting circuit left open where wires had been literally torn out. This was located just back of a show window where clerks were passing back and forth during the day. The ends of the wires were alive and carried 120 volts. It had been left that way about 18 months. Dark object is a conduit coupling and armored cable fitting looped over an iron bracket. Owner did not know that the wires were hot until reinspection revealed the fact.

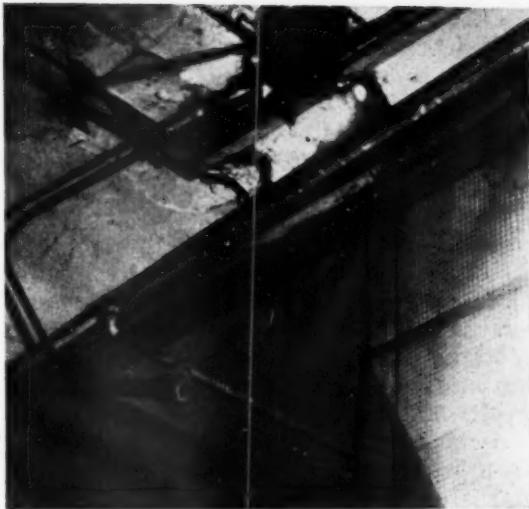


Cord wire feeding through floor into damp basement from ceiling outlet in store above. A brass-shell, pull-chain socket, was used as switch at foot of stairs. Light fed from it by cord hanging from nails through another brass shell socket. This constitutes a live as well as a fire hazard.

Just a glimpse here of electrical circuits that had been "haywired" into the lamp-dipping department in the basement of a theatre. Double branch cut-outs mounted open on the wall, fed by a piece of armored cable from a ceiling outlet not shown in the picture. No fittings on the cable. Cord wiring leads off from the cut-outs to receptacles. One of the receptacles was connected continuously to the circuit, without switch interposed.



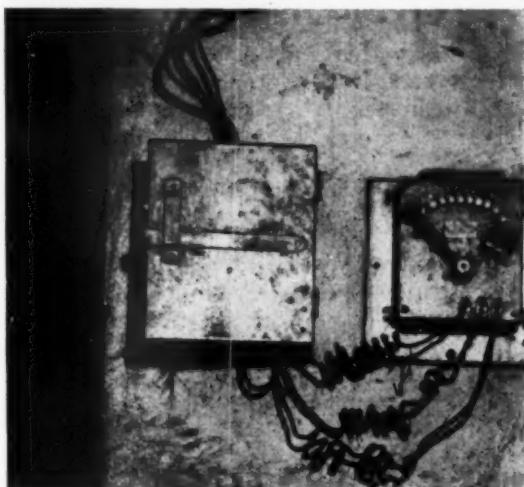
Electrical Contracting, November, 1932



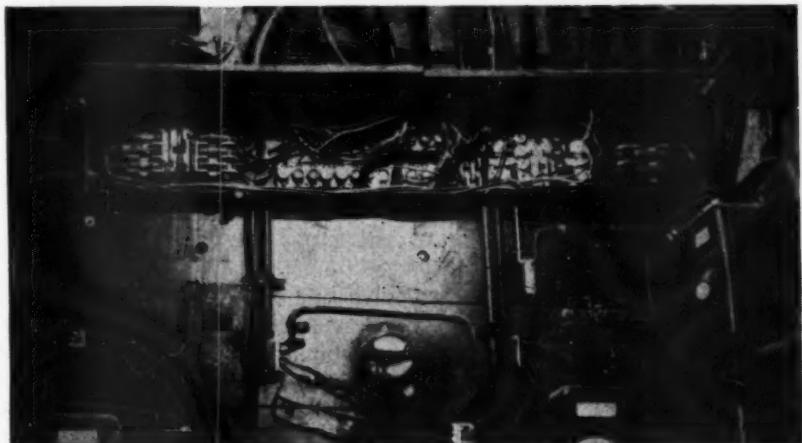
What is the object on the ceiling in the center? Call it "horse feathers" and you will be close enough. It was originally an outlet box. But the cover is off, box rusted away, wires hanging loose, insulation fuzzy, cobwebs and dirt. Reinspection discloses these horrors by the dozen every day.



Large motor starting equipment mounted in a basement, with conductors in a snarl, some of them on the floor, and altogether a hazardous and contrary-to-code installation.



A motor starter mounted on the wall of a dark, wet basement. Conduit not carried to the cabinet, but ending about 18 in. away. Tangled wires from there on. The open end of the conduit (not shown) carrying the conductors is supported by having thrust into it, along with the conductors, another piece of smaller pipe coming in from somewhere in the mysterious darkness beyond.



Feeder panel. Open boxes enclose many sub-feeder cut-outs and disarranged feeder circuits. Abandoned feeder circuits in boxes have open bare ends. Live feeders greatly overfused. Covers left open permanently as seen here.

electrical contracting

With which is incorporated The Electragist

S. B. WILLIAMS, Editor

NOW N. E. C. A.

N changing from the A.E.I. to the N.E.C.A. (National Electrical Contractors Association) the association gave expression to the sentiment now underlying all business—back to fundamentals.

For ten years it was the Association of Electragists, International, and while many in the industry came to be familiar with the name "Electragist" it was virtually meaningless to the one class for which it was designed to mean the most—the public.

Outside of the membership of the association there were not a large number of contractors who understood the significance of the name and it was in some measure due to that lack of understanding that kept some local contractors' associations from affiliating with the national body.

We feel that the industry generally will welcome the return to the association's first name and for those who wish to maintain their identification as an "Electragist" the name is still available and may be so used.

There is nothing quite so completely expressive as a simple name like National Association of Electrical Contractors. It tells all—what more is there to say?

CHEAP JAPANESE LAMPS

N 1928 Japan imported 18,000,000 miniature lamps into this country and in 1932 it is estimated this figure will rise to 54,400,000. The General Electric and Westinghouse miniature lamp production in 1928 for Christmas time lighting alone was 46,273,000 lamps. This year the figure will be around 12,000,000 lamps.

This flood of cheap Japanese lamps has caused the shut-down of three factories and

the throwing out of employment of 600 wage earners.

During the same years the importation of large lamps from Japan has increased from 19,000,000 to 34,400,000 lamps causing a loss of employment to 1,000 more American factory wage earners, to say nothing of those employed in the furnishing of materials, in warehousing and in selling.

Few of these Japanese lamps are finding their way into American homes through electrical channels so that this condition represents a considerable loss to the electrical retail and wholesaling field.

If the lamps were only nearly as good as American made lamps there might be some reason for accepting the situation, but these lamps are not carefully made, they have a much shorter life and, because they take 20 per cent more energy to provide the same amount of light as American made lamps, they cost the consumer much more in the long run than the apparent saving of the difference in lamp prices.

The public must be made to understand that by buying these cheap Japanese lamps, it is actually spending more money and at the same time helping to deprive thousands of American people of employment.

THE WHOLESALER'S BEST CUSTOMER

At the Electragist Convention a former executive of a large wholesaling house made the statement, while speaking about the appliance market, that the contractor-dealer was the jobber's most important customer. He might just as truly have said that the contractor was the jobber's most important customer.

In the beginning of the appliance market department stores, hardware stores and other non-electrical outlets purchased their small requirements from electrical wholesalers. Do they today? Or is it not rather that hardware jobbers are not only taking this business, but are trying to sell to electrical outlets? The utility in its purchases has shown the electrical wholesaler scant attention, and the industrial is ever ready to listen to the story of the direct selling manufacturer.

And yet, with the facts staring them in the face that the contractor is their best customer why do wholesalers do so many things to discourage the contractor?

We suggest that there is almost no sale which could not ultimately have been made

by some wholesaler in the proper manner. In other words, the sales to industrials, office buildings, garages, etc., merely by-pass the wholesaler's best customer without making any more electrical business, or without making any more money for the wholesaler.

In our opinion, it will not be very long before the electrical wholesaler will have no appliance or radio business other than that to the contractor-dealer. Does he want this business? It can be made to grow and be profitable because it is a quality business. If it is to be developed the jobber must begin to work to build and develop this type of customer.

Does the jobber want industrial business? Does he want it at a profit? Then he must see that he must work with the industrial electrical contractor and not against him.

There are few industrial plants that a wholesaler can serve profitably. These should be classified and a discount basis set up. All other plants, buildings, stores, etc., should receive no discount from the wholesaler. With all of this business going through the contractor the wholesaler would get as much business as formerly but the orders would be larger and his sales force smaller.

PRIVATE SURVEY BUREAUS

In San Francisco, Kansas City, St. Louis and Chicago there are now quantity survey bureaus being operated as private ventures quite apart from any association. This is a move in the right direction, because there is no doubt about the value of such work provided there is no suspicion of collusion.

The problem to be faced is that of charges for such service. Under the association plan which broke down wherever tried, everybody who filed on a job paid a small fee while the successful bidder paid a large fee, generally a percentage. This system was not good because with anybody able to get a survey at a nominal charge every job was overrun with bidders. Prices were quickly demoralized.

Since an estimating bureau does not make the bid, but merely determines the quantities, it should not be made to gamble on the outcome of a job.

These bureaus must be ready to furnish a survey whenever wanted and for that reason must maintain some sort of overhead. It is very possible that such bureaus could have

two types of customers, regular and occasional. The former might pay a fixed fee each month and obtain their surveys at cost. The latter would not pay regular monthly fees and would therefore be expected to pay a high fee for an occasional survey.

The problem, of course, comes in finding the right basis for rates. It is obvious that the more contractors who request a survey of any job the less the cost should be to each. It should be equally obvious that if only one contractor wanted a survey of a particular project he should pay the entire cost of that survey.

Contractors should bear in mind that survey bureaus can save them a lot of expense both in actual estimating costs and in reducing the opportunity for error. In addition, these bureaus can be of great advantage in that they assure all competitors with bureau surveys that they are filing on the same job.

With this in mind contractors should be careful to see that these bureaus are paid rates that will make it possible for them to render the best and most accurate service. Any attempt at chiseling, if successful, while it may save the contractor a few dollars on a survey, has in it the possibilities of lessening the care with which a survey may be prepared and the resultant chance of an error that may cost many hundred times the saving.

REINSPECTION FEES

ONE of the things that hold back reinspection is the cost. A chief inspector frequently is unwilling to promote reinspection unless he can see a revenue that at least will cover the inspection expense.

This is not an insurmountable obstacle but it does require considerable study. It is doubtful if the same fees for inspecting new work can be applied to work that is being remedied as the result of reinspection. In the first place fees for new work are based, as a rule, on outlets or connected load and this, of course, is frequently not applicable to rewiring. Also rewiring calls for much more careful inspection than new work and for that reason some other yardstick should be used for reinspection fees.

In our opinion this subject calls for some very careful study. A joint committee of the Electragists and the inspectors' association ought to be able to make acceptable suggestions. In the meantime we shall be glad to have our readers express their opinion.

/// code chats ///

A MONTHLY DISCUSSION OF WIRING PRACTICE AND QUESTIONS OF INTERPRETATION, PRESENTED WITH A VIEW TOWARD ENCOURAGING A BETTER UNDERSTANDING OF THE NATIONAL ELECTRICAL CODE.

CONDUCTED BY F. N. M. SQUIRES

ASSISTANT CHIEF INSPECTOR, N. Y. BOARD OF FIRE UNDERWRITERS

GROUNDING FITTINGS

On a recent job I installed a meter trim switch on a rear porch. As there were no water pipes in this house I drove a 3/4-in. galvanized water pipe 8 ft. into the ground and continued the pipe up to the meter trim switch box. Here I secured the pipe to the box with a locknut and a grounding bushing of the regulation type. The inspector turned it down because I had not used a "groundule."

Here our correspondent has continued his grounding electrode consisting of a 3/4-in. galvanized directly up in to his service switch box. It is somewhat unusual, simply because of its simplicity. There seems to be no reason why such construction should not be approved providing a proper and satisfactory connection is made between the neutral service wire and the grounding bushing. This will, then, take care of the system ground, but another electrode will have to be driven at least 6 ft. away to ground the equipment.

POLARITY IDENTIFICATION

Is it permissible to paint one conductor of a two-wire 30 ampere service black for identification? The ground wire being natural white, I understand that the white conductor has to be natural. But other conductors can be marked by other means for identification.

When the requirement for polarity identification of wires first came into the Code most inspection departments were lenient in enforcing the rule which required a continuous identification and allowed the painting of the ends of one wire at the outlets. This was because many contractors had

large stocks of wire of but one color. Now, however, the inspection departments feel that sufficient time has elapsed for the contractors to have rehabilitated their stocks and that strict adherence should be made to the rule which requires that "the polarized grounded wire of an interior wiring system shall be continuously identified throughout the system by the use of an identified outer covering." With any haphazard method of marking, as painting seems to be, there are too many chances for errors to be made which might result in serious accidents.

BRASS SHELL SOCKETS IN BASEMENT

Can brass shell sockets be used in the cellar of a dwelling or apartment house where the floor is of concrete, and walls and ceilings are lath and plaster? The condition of walls and woodwork does not indicate presence of dampness.

This matter has been the subject of much debate and argument between inspectors and contractors for years. Probably the final decision in each case rests with the local inspector because of the many varying factors encountered. For instance,



KANSAS CITY CONTRACTORS COOPERATE WITH FIRE AND INSPECTION DEPARTMENTS ON ANNUAL REINSPECTION: The first constructive step in the program for the correction of electrical fire hazards and reinspection, as worked out by a special committee of the Electric Radio Association of Kansas City, Mo., was the inspection of electrical fire hazards by uniformed inspectors and firemen during the week of October 10—National Fire Prevention Week. Two meetings were held at which 108 captains and lieutenants of the fire and inspection departments attended. The meetings took place in the laboratory of the Kansas City Power & Light Co., with E. H. Waddington, sales manager of Graybar Electric Co. and W. J. Squire, president of Squire Electric Co. and also the Kansas City Electragists, in charge. Actual demonstrations were conducted including illustrations of various misuses of electricity. The following points were made a part of the regular fire inspection cards: Misuse of lamp cord; open wiring in conduit districts; wires not on insulators; pennies behind fuses; other defects, and notify city electrical inspection department. Photograph above shows the captains and lieutenants who attended the second meeting.

YOU CAN SELL

You can sell house wiring *now* if you start the sale at the wall plate.

Modernization jobs. A pilot light here—a radio connection there—a couple of extra convenience outlets—a re-arrangement of switches to save steps and current. These jobs are small but they keep you busy and pay you well. Because you don't *bid*—you *quote*. You get your price and you pocket your profit.

Provided you sell!

Start the sale at the wall plate—with the P&S-DESPARD line of wall plate merchandise. With

The P&S-Despard Line of Wall Plate Merchandise

you can assemble 59,244 different combinations from your stock of only 23 Major Interchangeable Units.

Amazingly compact, the P&S-DESPARD line permits installation of any one-unit, two-unit or three-unit combination in a single-gang box, and from single to six-unit combinations in a two-gang box—all assembled at your shop or on the job by your wireman, obviating the expense and delay of factory assemblies.

Because of this lower assembly cost, lower manufacturing cost and substantial savings in transportation due to lightness and compactness, P&S-DESPARD combinations *cost less installed* than any previous wall-plate devices.

A new catalog, listing more combinations than you ever saw before—and containing complete wiring diagrams for them—is yours for the asking. Write—Pass & Seymour, Inc., Solvay Station, Syracuse, N. Y.



LINE OF WALL-PLATE MERCHANDISE



PANTHER FRICTION or DRAGON RUBBER TAPES

are two new high grade commercial tapes backed by the reputation of The Okonite Company, makers of Okonite and Manson tapes.



They are individually wrapped in cellophane and sealed and with distinctive cores.



The above is the Handy Package, containing 10 rolls of cellophane wrapped and sealed No. 8 Panther Friction Tape—a durable and truly handy package.



Panther displays in color help counter sales. Panther No. 1 and No. 2 also individually wrapped in cellophane and sealed.

Hazard Insulated Wire Works
Division of
The Okonite Company
Passaic, N. J.

soil conditions play a large part; then how well or how poorly the cement floor is grounded to the soil, etc.

If the cement is laid directly on the earth there will probably be a very good ground except during a protracted dry spell of weather. And it doesn't take a very heavy ground to be dangerous to a person standing on it who comes in contact with the live side of a circuit.

In some apartment houses we sometimes have several floors which are below ground level but which are not each in contact with the ground itself. These may seem to be fairly well insulated but often are quite heavily grounded through the steel girders of the building.

The many fatalities and accidents which have occurred due to persons touching brass shell sockets while standing on such floors prove to everyone the hazards of using such sockets over cement floors in basements. After going above ground level the effects seem to lessen to a negligible point. Therefore, over cement floors which are below ground brass shell sockets should be avoided.

In the above we have tried to show that these floors are damp within the meaning of the first sentence of rule 1405-c.

ARMORED CABLE IN RABBIT WARREN

Is it permissible to wire a building in which rabbits are bred with armored cable? (rabbits kept in cages). The building is situated in a dry location, and is properly ventilated.

Armored cable may be used in dry locations and as this rabbit warren is dry and well ventilated there seems to be no reason for prohibiting its use. The condition of exposed pieces of iron or steel in this place would give a good indication of what effect would be experienced with the armor of the cable.

RUNNING FUSE FOR 3 H.P. 220 VOLT MOTOR

What size fusing is permissible for running protection of a 3 H.P. 220-volt single phase motor repulsion start and induction running full voltage starting?

According to Table 3 on page 128 a 3 H.P. single phase 220-volt motor has a full load current of 14 amps. By reference to Table 1 column 5 (page 123) we find the running protection fuse to be not over 20 amps.

BONDING JUMPER FOR 30-AMP. SERVICE

What size bonding jumper is required around a water meter which is housed underground, for a 30-amp. service?

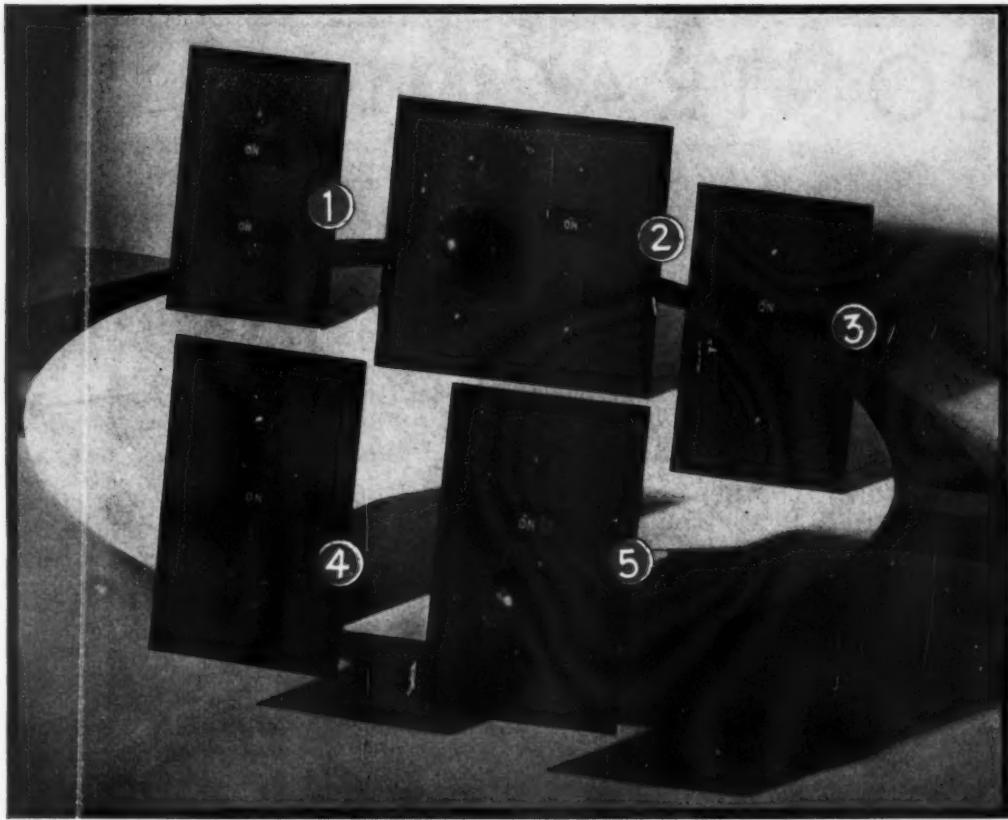
Such a bonding jumper should be at least a No. 8 wire which is the minimum size of the grounding conductor required for the service mentioned.

FUSING FOR MOTOR GROUP

There is some question in my mind about the size of the feeder protective device in the example given in subparagraph 1 of paragraph A of Section 808. Will a 70 amp. fuse start one 20 H.P. 440 volt 3 phase 60 cycle squirrel cage induction motor (full voltage starting) with three 10 H.P. (same type motors) running? The example clearly states that a 70 amp. fuse is the maximum that can be used with this combination. It would seem to me that under subparagraph 2 of paragraph A of Section 808 that one 20 H.P. and two 10 H.P. 440-volt three-phase 60-cycle would require No. 4 (rubber covered wire) but that the feeder protective device (a fuse) could be as high as 110 amps. This would keep the fusing on a 50 H.P. load to 70 amp. and let the fusing of a 40 H.P. load go to 110 amp. I would appreciate getting on the right track for a situation of this kind. I enjoy the monthly issues of ELECTRICAL CONTRACTING and believe it the most valuable of all this type publications.

The question brought up by the reader is quite a reasonable one and is the result of a slight inconsistency in the present wording of paragraphs 808a 1 and 2. It is quite possible that the motors would be started satisfactorily on the 70 amp. fuse, but if the loads were at all severe it is quite possible to expect that the fuse may be blown. In order to eliminate such a possibility and in order to be more consistent the next issue of the Code will probably contain a combination of 808-a 1 and 2.

At the time the present Code was written it was recognized that while the rules and tables would quite properly take care of average motor conditions, there would be experienced conditions under which the rules would not quite properly cover, and, therefore, 808-a 4 and Exception 3 of 808-b were put in to give the local inspection department sufficient authority to properly cover the matter.



COMBINATION WIRING DEVICES SAVE TIME, SPACE

- 1 Combination switches under one plate.
- 2 Combination switch, pilot light and convenience outlet.
- 3 Combination switch (10 amp) and convenience outlet.
- 4 Combination switch (20 amp) and convenience outlet.
- 5 Combination switch and pilot light.

Time, space are important factors in the installation of any electrical equipment. The wide variety of combination wiring devices manufactured by General Electric is not only of great value to the contractor but an added convenience to the consumer.

The combination wiring devices illustrated on this page are only a representative group of the total number of combinations.

For further information consult your General Electric Merchandise Distributor, or write Section D-3211, General Electric Company, Merchandise Department, Bridgeport, Conn.

GENERAL ELECTRIC
WIRING DEVICES

MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONNECTICUT

CONTRACTING

news

INFORMATION OF INTEREST TO ELECTRICAL CONTRACTORS
CONSISTING OF ITEMS OF NEWS, SHORT ARTICLES, PRACTICAL
IDEAS, ETC., OUR READERS ARE INVITED TO CONTRIBUTE TO
THIS DEPARTMENT

WASHINGTON TO INCLUDE ADEQUATE WIRING IN RED SEAL

A committee, headed by J. T. Kirchner, has been appointed by the Electric League of Washington, D. C., for the purpose of revising Red Seal specifications in order to provide for wiring adequacy.

It is planned to hold meetings every other week until a set of complete revised specifications and a constructive promotional program is completed.

The discussions at the initial meeting indicated that the new specifications will go far beyond the number of outlets required for Red Seal specifications. Recommendations will also be made for a super-service.

Sub-committees have been appointed on various phases of the work, and these sub-committees will report its findings and recommendations at each general meeting, where final action will be taken.

LOWELL CONTRACTORS SEE BUSINESS IMPROVEMENT

The members of the Lowell (Mass.) Master Electrical Contractors Association, at its annual meeting held recently, reported that business conditions in that section of the country were slowly improving.

Although no constructive plans have been made for the future, the association is trying to educate competitors as to the fallacy of ruinous prices.

A great amount of the available electrical work during the depression was secured through the Lowell Electric Light Corporation. The light company recognized the association as representing the most reliable of Lowell contractors and has cooperat-

ed with the association one-hundred per cent.

The following officers were elected: George A. Ryan, president; Ralph Derby, vice-president; J. Harvey Lamoureux, secretary, and John J. Gallagher, treasurer.

FIRST LOCAL COOKERY COUNCIL FORMED

On October 11 the Milwaukee Electrical League formed the first local Electric Cookery Council, which will be a division of the merchandising section of the league. The local

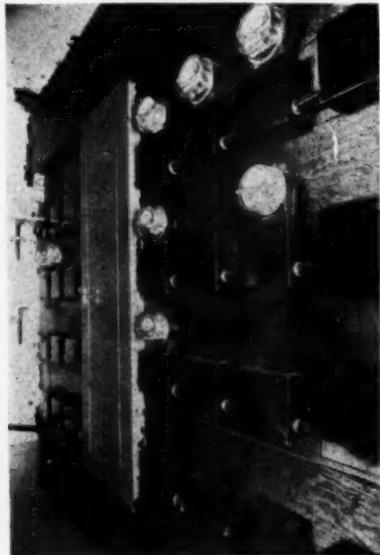
council will work in conjunction with the National Electric Cookery Council recently formed for the promotion of range wiring.

F. A. Coffin, commercial manager of the Milwaukee Electric Railway & Light Co., has been appointed operating sponsor for the Milwaukee area, which includes Waukesha and Ozaukee counties.

The quota for the fiscal year is 1,800 ranges. The Milwaukee Electric Railway & Light Co. is behind this activity, which is purely a dealer cooperative set-up with the power company doing the sales promotion but taking no actual business. They are contributing a bonus of \$3.00 per kilowatt per range (amounting to \$24.00 or \$25.00 on the average) to each dealer who qualifies by selling five ranges or more.

SOME PROPOSED CHANGES IN THE CODE

In an address before the annual meeting of the southern section, I. A. E. I., at Richmond, Va., on October 4, A. R. Small, chairman of the Electrical Committee, N. F. P. A., outlined the proposals now made for changes in the Code to be considered at the 1933 meeting. Those pertaining to Articles 6, 7, 8 and 36 are espe-



MODERNIZATION WIRING: Great numbers of older office building have service conditions such as pictured at the left offering contractors modernization wiring opportunities. This was one of five in the Dean Building, South Bend, Ind., which was changed over to the modern service at the right by the Colip Electric Co. The old service had no safety switches and used open link fuses with no protection against circuit overloading. Twelve office rooms were fed by a single No. 14 service wire. The new installation provides safety, modern and lower cost fusing, convertible meter arrangement and protection against overloading of circuits. These photographs were furnished through the courtesy of City Electrical Inspector F. E. Champaigne.

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cially interesting and are here given as stated by Mr. Small:

The scope of Article 6, Conductors, is very considerably extended by including therein Section 613, Demand Calculations for Feeder Sizes. This section was originally developed to avoid using extremely heavy copper in risers and feeders such as are found in tall buildings. By almost general consent it has become, because of items 1-18 of paragraph d, a compilation of minimum adequacy rules. From this point of view it is no doubt out of balance securing too few branch circuits in some cases and too heavy copper elsewhere. In particular it is likely that paragraph 18 covering demand for range and large appliance loads will be studied.

From the time of the first edition of the Code and therefore from the first use of electricity for light, heat and power, the specified insulation thicknesses for various classes of "high-voltage" conductors have been on the basis of the dielectric required for the voltage between conductors. The introduction into buildings, according to Article 50, of circuits and apparatus operating on grounded high-voltage circuits now brings to Article 6 a proposal for classifying conductors (as to insulation thicknesses) on the basis of circuit voltage to ground. Indicative of the possible effects within the industry of a single change, such as this one if approved, is the substantial reduction in outside diameter of a given size conductor for a given working voltage and the consequent permitted use of smaller trade sizes of conduit and conduit fittings.

Article 7 Committee's chief concern at present is the proposal to require flame-proof coverings on groups of conductors confined in gutter spaces and similarly. Experience indicates complete indifference on the part of designers and contractors to the sense of the 4th fine-print note preceding Section 201 of the Code. Accordingly, the demand now is that "there be a law agin it."

The Automatic Protection of Circuits and Appliances against Overload is necessarily a hardy perennial problem. At present the Article 8 Committee is studying Section 808 to clarify certain inconsistencies which field trial has exposed in protecting groups of small motors with a single motor-feeder overcurrent device.

The starting current conditions when the largest motor on a feeder exceeds 40 per cent of the total motor load are not always as assumed in 808-a. Then too, a technical sub-committee is to report on the matter of the special non-tamperable branch-circuit fuse and the general problem of branch-circuit layouts. Among the proposals having study is one to use No. 12 instead of No. 14 wire for combination lighting and appliance branch circuits. Another is to legalize present bootlegging and count upon the use of 30-ampere fuses.

For many years the text of Article 36 (formerly 39) has mentioned emergency lighting for Theatres and Motion-Picture Houses. Of late the Article Committee has recognized a demand and a need as well for some elaboration on these provisions. Considerable progress was reported to the 1931 meeting of the Electrical Committee. It is likely that a final text will be reported out this year.

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DEBATE WIRING COSTS

The cost of wiring from the viewpoint of the utility and the contractor was debated before the power group of the New York Section, A.I.E.E., on October 14 by H. R. Searing, general superintendent of distribution operations, New York Edison, and Allan Coggeshall, president of Hazel & Buehler, Inc., New York electrical contractors.

Mr. Searing pointed out that since ownership of wiring is divided among so many customers responsible for its maintenance, the tendency has been to install a high-grade system that needed very little maintenance. He urged that wiring in large buildings follow the example of utility net works and come closer to actual demand instead of providing so much surplus capacity. He closed by taking an average residence, the wiring of which cost \$150 and which uses 595 kw-hr. at an annual cost of \$33.48. He contended that carrying charges on the wiring would almost equal the energy costs, by taking 15 percent as these charges. He also showed that this customer paid \$215 per kw. of demand for his wiring and contended that this cost is not decreasing although that of the utility is.

Mr. Coggeshall likened the utility lines to electrical roadways, that "have not, however, been cheap to



SALT LAKE ELECTRAGIST OFFICIALS: Edward H. Eardley (left), president of the Salt Lake City Chapter of Electragists, and president of the Edward H. Eardley Electric Co., and R. E. Bartlett (right), secretary of the chapter and vice-president of the Wasatch Electric Co.

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For further information see the nearest G-E Distributor, or write Section W-3211, Merchandise Department, General Electric Company, Bridgeport, Connecticut.

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My jobber is _____

11-32



PUSHES SPECIALTIES: W. S. Hurley of the Delnor Electric Co., Erie, Pa., is alert to every opportunity for profit in electrical work. In addition to having a large amount of work on hand in general electrical construction he keeps pushing the specialties such as electric door chimes. Mr. Hurley specializes in state and government electrical work. He has been in business in Erie for the past eight years and prior to that in Pittsburgh.

construct, and apparently they are fairly expensive to maintain. We are willing, however, to pay a fair and just pro-rata share for the use of these highways provided only, that we have enough left, so that we don't have to employ dirt roadways on our own premises."

He showed from a study of reports of the New York companies that an average of \$548 is invested per customer by the power companies. These customers have an average demand of 1.28 kw. Mr. Coggeshall then took the case of a customer with a wiring system laid out from accumulated load data establishing real facts as to load cycles, d.c. Although it had a capacity equal to five times its normal demand load, it cost only \$350 per kw. of demand whereas this customer is asked to pay the utility, which has to provide in its system only for the demand requirements, on the basis of \$430 per kw. demanded.

Real team-work between the contractors, engineers and utilities can, in Coggeshall's opinion, accomplish much.

"The real economies in electrical wiring," he stated, "are more likely to be found in the design of the system of wiring employed, than in the actual choice of materials to be used. If we can find ways and means of more nearly bringing into line the capacity provided and the loads to be experienced and still at the same time, preserve the necessary safeguards of

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The basic idea of the National Electric Cookery Campaign is to make it possible for all branches of the electrical industry to work together *profitably* in promoting electric cookery.

Here at last is a concrete thing to co-operate about. Your place in this picture is vital and necessary. Only with your help *locally* can the National Plan to sell a million ranges in three years be successful.

Local Cookery Council will create profitable business ... for YOU

The establishment of your Local Council is necessary first of all in order to standardize practices and to establish policies that will fit LOCAL conditions. It provides a focal point for initiating all range selling activities on a uniform basis. Under its sponsorship, all the forces in your locality that CAN co-operate, will be mobilized in a united drive for Electric Cookery.

Act now. Get together with the other contractors and dealers in your community. With them and your local utility start now to get your Local Council on an actively operating basis.

"The Plan Book"—outlines a comprehensive program for the formation of your Local Cookery Council. Send for your copy. Write to National Headquarters—National Electric Cookery Council, 420 Lexington Ave., N. Y. C.

The 3-year range program upon which the electrical industry is embarking offers an unparalleled opportunity to the contractor-dealer. House wiring alone, it is estimated, will bring a gross business of \$43,000,000.

"We want this business.

"We can get it by industry co-operation with the power companies and all the other local interests that will profit by range sales."

President,

National Electrical Contractors Assn.



NATIONAL ELECTRIC COOKERY COUNCIL

Sponsored by National Electric Light Association and

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spare capacity, voltage drop, protection against overload, continuity of service, etc., we will be making constructive progress."

CHESTER F. CROWLEY

Chester F. Crowley, vice-president and manager of the Cleveland office of the Hatfield Electric Co., died in an automobile accident on October 21.

Mr. Crowley assumed charge of the Cleveland office early in 1922 and was very active in electrical work in Cleveland. One of his outstanding



Chester F. Crowley

jobs was the wiring of the Cleveland Terminal project completed this year.

He was also active in association work in Cleveland.

HARRY ALEXANDER

Harry Alexander, founder of Harry Alexander, Inc., New York City, killed himself on October 18 at the age of 61, after a severe heart attack. In 1929 Mr. Alexander retired from active service with the company he founded.

Among the outstanding contracts Mr. Alexander handled was the wiring of the White House during President Roosevelt's administration and the wiring of the summer White House at Long Branch, N. J., for President Wilson. Mr. Alexander also wired the Roxy Theatre. One of his earliest contracts was the electrical work on the old Siegel-Cooper department store in New York.

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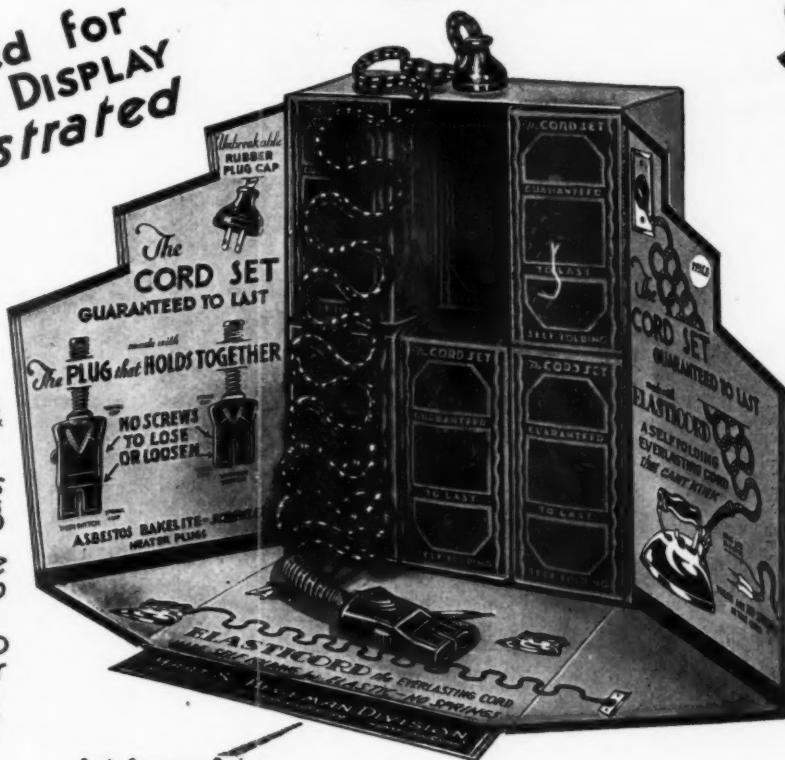
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- <4> GUARANTEED for One Year



Each Standard Package
of 12 sets form the Counter
Display illustrated above



For the Christmas trade — when electrical goods move fast — sell these Guaranteed Cord Sets for toasters, percolators, flatirons etc. All exclusive features: Kant-Kink ELASTICORD; SCREWLESS Bakelite Heater Plug; pull-handle UNBREAKABLE rubber cap; a one year GUARANTEE. Priced to allow you a real profit; timed to get the extra-fast turnover of holiday gift-buying. . . Each standard package of 12 sets forms the Counter Display illustrated above (color, deep buff). ASK YOUR JOBBER'S SALESMAN OR WRITE US FOR SALES PROPOSITION.



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Nothing like it on the market! No imitations—no substitutes—no price cutting competitors. Nothing like it for Profits—over 35% profit on material plus installation profit—few items give the Contractor-Dealer and Jobber a greater profit margin!

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Get started NOW—Send for the Special introductory Assortment today! Includes everything needed to get **BIG PROFIT** Electrotrim business. Order it NOW before Everyone has it!

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Rush me special \$20.50 (\$25.50 Pacific Coast) Introductory Assortment consisting of 50 feet of Electrotrim in Oak, Mahogany, White and Ivory and fittings to match each color; 1 pr. cutters; Free Advertising folders, display card and sample cards.

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A ROLL O' TAPE

ELECTRICAL FLASHES
GATHERED AMONG THE
BIG WIRE AND PIPE MEN

BY
ELECTRICAL CONTRACTING'S
FIELD EDITORS

THE Electrical Contractors and Dealers Association of Harrisburg and vicinity is another of the associations that refuses to accept contributions from the local light companies.

PASSING by the Fowler Electric Co. store in Cedar Rapids, Ia., one is attracted to one of the windows which has a systematically laid out panel display of samples of all types of wiring materials, listing a description and the price it sells for. Upon inquiry it developed that the display attracts all kinds of men to it and what is more it has been instrumental in increasing inquiries and sales on all kinds of small items.

In September, 1882, the demonstration of a new arc light brought crowds to Milwaukee to see electric light in operation. In May of that same year Herman Andrae, founder of the Herman Andrae Electrical Co., started doing electrical work in Milwaukee and vicinity. Through the entire 50 years this pioneer concern has stood among the leading contractors of Milwaukee.

ONGMONT, Fort Morgan, and other Colorado towns furnish free current for porch lights as a means of advertising the town to strangers passing through and as a protection against prowlers. Contractors in these places benefit through additional outlets and the sale of lamps.

C. M. Davis of Harrisburg, Pa., occasionally turns a few quick but honest dollars in making lighting surveys. He agrees to check charges of the power company, rearrange lamps, or motors to effect a saving without affecting the results. He gets half of the saving for one year in payment. One customer saved \$80 per month, which gave Davis \$480 for his trouble.

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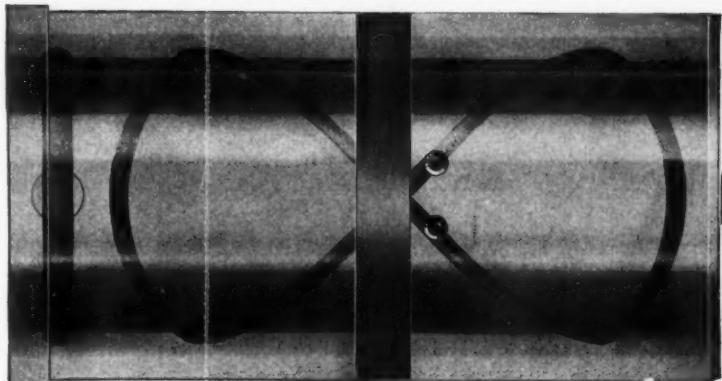
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Phosphor Bronze Bearing with
Machine-cut Oil Groove

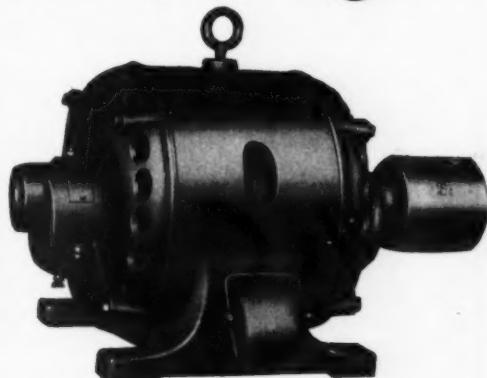


What Makes Century Motors Last So Long

LONG life always has been built into Century Motors...For example—the sleeve bearings last longer. They are designed to carry heavy loads—made from heavy, thick Phosphor Bronze Castings—with machine-cut oil grooves to assure even distribution of oil over the entire bearing areas. They are securely held in place—when pressed into the bearing housings, more than half of the outside bearing area is in contact with the cast-iron end brackets.

The 1 horse power and smaller sizes are equipped with the Century Wool Yarn System of Lubrication which assures at least one year's continuous 24-hour-per-day operation without reoiling. The larger sizes are oil-ring lubricated...Grease-lubricated ball bearings can be furnished.

Century Type SC Squirrel Cage Motors are built in standard horse power ratings $\frac{1}{4}$ to 250.



10 Horse Power Century Type SC
Squirrel Cage Induction 3 Phase Motor

Century
MOTORS

CENTURY ELECTRIC COMPANY, 1806 PINE ST., ST. LOUIS, MO.
Offices and Stock Points in Principal Cities

ALTERNATING AND DIRECT CURRENT, SINGLE PHASE, POLYPHASE, SPLIT PHASE, MULTISPEED
AND SPECIAL MOTORS, RANGING IN SIZE—DEPENDING ON TYPE—FROM $1/60$ TO 250 H. P.

FOR MORE THAN 28 YEARS AT ST. LOUIS

ED-10-10



Fretz-Moon Conduit cuts easily and quickly either by saw or pipe cutter. It threads easily, too. The exclusive process of manufacture prevents hard or "burnt" spots in the metal that might cause cutting and threading troubles, and insures a highly uniform product. This is but one of the reasons why Fretz-Moon Conduit saves installation time and labor—why so many users of conduit prefer it.

FRETZ-MOON TUBE COMPANY, INC. • BUTLER, PENNA.

FRETZ-MOON RIGID CONDUIT



Type A

**IT CAN
BE DONE!**

with

RUGGED RALCO RECEPTACLES

There's no more dependable Heavy Duty Circuit Breaking Receptacle and Plug than the RALCO SWITCH BLADE CONTACT Type. 250 Volt D.C.—600 Volt A.C. 2, 3 and 4 Pole. For weatherproof housings see Bulletin No. 101-A. For watertight housings see Bulletin No. 102. If you do not have these Bulletins, write us.

Ralco Manufacturing Company
Designers & Manufacturers
125 No. Albany Ave., Chicago, Ill.



Type B



Type C



Type D



Type H



PRG-Plug



Type HF

In another instance this contractor saved an owner some heavy "readiness to serve" charges. The building had formerly been occupied by an electrical fixture house with plenty of outlets and the owner forgot that this would affect the bill.

FINDING the electrical contracting business exclusively not as profitable as it should be, George R. Randall, president of the Salt Lake Electric Supply Co., Salt Lake City, Utah, has taken on the agency for a stoker. We were standing just outside the door chatting with Mr. Randall when two snappy young men left his place and got into a waiting car. "See those young chaps?" said Randall. "You would not guess it, but they are two of my wiremen. They are stoker salesmen now. And I am here to tell you they don't know one-tenth as many reasons why they can't get business as does the average salesman today, who has gone through the depression. It is all new to them and they are hot after orders."

DO you have customers who are hard of hearing? Boyd Deimler, Hummelstown, Pa., recently installed a light to replace the telephone bell for one such customer.

RALPH KING of Atlantic, Ia., heard of a lady who wanted to buy a faucet water heating unit (the kind the house to house peddlers sell). Ralph rushed out with one and demonstrated. The lady was impressed—impressed with the fact that you cannot buy a device for a dollar or so and get the same efficiency and safety as from a big standard automatic electric water heater, so she ordered the latter from Mr. King.

THE Dauphin Electric Company, Harrisburg, Pa., has just completed a contract for which they have been working eight years. This was the rewiring of twenty-four Harrisburg school buildings. Educational and promotional work among the customers doesn't often bring immediate results, but sooner or later a percentage of solicitations are bound to result in orders.

F. K. Fogel of Allentown, Pa., keeps an alert eye on the motor driven machines in the industrial plants of his customers. Some manufacturers power their machines with motors of insufficient horse power as it gives them a talking point on the low power consumption of their machines. The result is that these motors are strained to capacity as was the case with an ice machine that was continually getting stuck. Fogel remedied this condition by installing a larger motor and has done several jobs of this kind.



AMERICAN STEEL & WIRE COMPANY

FLEXIBLE CORDS

Labeled — To Protect Customers

No more risk of handling hazardous Flexible and Heater Cords! Cords approved by the Underwriters Laboratories can now be positively identified by the "5 foot label," a narrow paper covered metal band clipped to the cord at regular intervals. Flexible Cords made by the American Steel & Wire Company are available bearing this form of identification. This movement deserves your co-operation. You help yourself by helping the electrical industry cut down that 42% damage loss due to cheap, unsafe cords. We will gladly furnish additional information upon request.

1831 1932

AMERICAN STEEL & WIRE COMPANY

208 South La Salle Street, Chicago
94 Grove Street, Worcester

SUBSIDIARY OF UNITED STATES STEEL CORPORATION

Empire State Bldg., New York

AND ALL PRINCIPAL CITIES

First National Bank Bldg., Baltimore

Pacific Coast Distributors: Columbia Steel Company, Russ Building, San Francisco

Export Distributors: United States Steel Products Company, New York



Exhaust and ventilating fans in sizes from 9-in. to 48-in. diameter.

LET'S PULL TOGETHER for fan sales!



9", 12", 15" and 18" Ventilating Fans

Every day, more and more electrical contractors are realizing profits from the sale of Diehl ventilation to "fresh-air" minded persons in homes, stores, restaurants, offices, factories and other places where air changes should be frequent.

Wholesalers of Diehl Fans carry diversified stocks to quickly fill the varied requirements of contractors and will gladly make recommendations for proper installation.

Let's pull together in developing business in this **ALWAYS ALIVE MARKET**. Write for the Diehl Ventilating Fan Catalog—it describes the entire line and also contains helpful installation data.



Wind-O-Vent Ventilator
Metal or Glass Panel

DIEHL MFG. COMPANY
Electrical Division of
THE SINGER MFG. COMPANY
Elizabethport, N. J.
Atlanta Boston Chicago
New York Philadelphia

DIEHL fans

PRACTICAL METHODS

FEEDER ACCESSIBILITY

On the Northwestern Telephone Co. building in Minneapolis the Langford Electric Co., Inc., installed all feeders suspended from hooks in a specially constructed sheet metal duct system bolted to the concrete ceiling.

One of the requirements of the installation was ease of accessibility to the feeders to permit changes and additions. In the construction of the duct system an iron bar framework



**NOW- how to repair
and rewind all types
of motors...**

ELECTRIC MOTOR REPAIR LIBRARY

4 volumes, \$10.00, payable in
easy monthly installments

THIS set of books should be on the shelf of every man who ever has to touch a motor for purposes of repairing it or changing it to meet different operating conditions. In four volumes, with practical shop methods it covers every step in stripping, rewinding and connecting a.c. and d.c. motors of all kinds.

Covers all types of motors, from those used in small household and commercial appliances of all kinds to mining and railway motors. Explains principles underlying the different types of windings; gives definite instructions for doing the various rewinding jobs. Also gives many data, tables and diagrams constantly needed by the repair man, including data difficult to get from any other sources.

How to change motors for different operating conditions

Here is all the information you need in order to determine what changes various types of motors permit; to lay out new windings for specified service conditions; and to handle every step in the work with satisfactory results.

Do you ever need information on:

- how to clean slots, true up laminations, insulate ends and build up new cores
- what to know about loop windings and how to handle them
- testing and locating faults in small alternating-current motors before stripping them
- rewinding small universal motors
- changing single phase windings for two and three phase operating
- how to lay out and use two phase lap windings
- laying out and connecting a pyramidal winding
- how to make voltage in induction motors
- how to make alternating-current windings for different frequencies
- laying out wave windings for alternating-current motors
- complete rules for frog-leg windings
- how to lay out and check up three phase diagrams

There are 1,079 pages of practical shop methods and data like these in this Library. It is a complete, up-to-date key to the repair of all motors. Nothing else in it; every page filled with definite, practical facts for the industrial maintenance man and the electric shop worker.

Low price—easy terms—10 day's free examination

Bought separately the books in this Library would cost you \$11. By using this coupon you need pay only \$2.00 for 10 days and \$2.00 monthly until the special price of \$10.00 is paid. In addition, we give you 10 days in which to examine the books free. Send no money; simply fill in and mail the coupon now; let us know your answer after you have seen the books.

McGraw-Hill Book Co., Inc.,
330 W. 42nd St., N. Y. C.

Send me the ELECTRIC MOTOR REPAIR LIBRARY, 4 volumes, postpaid, for 10 days free examination. I will return the books within 10 days of receipt or send you \$2.00 then and \$2.00 monthly until \$10.00 has been paid.

Name.....

Address.....

City and State.....

Position.....

Company..... EC-11-38
(Books sent on approval in U. S. and Canada only.)

Winter Opportunities

to sell G-E FLOODLIGHTS



WINTER offers special opportunities for floodlighting. Cold-weather sports will soon be in full swing in the northern states. Now is the time to visit city officials and the managers of parks and playgrounds and to explain the necessity of adequate illumination for the evening enjoyment of skating, skiing, tobogganing, coasting, and the like. Everywhere, industrials are good markets for striking, inexpensive publicity—such as is afforded by the floodlighting of signs. This is another field worth thorough cultivation.

TOBOGGANING

Correct floodlighting is essential to the safe enjoyment at night of this sport. List the possibilities in your territory and see the proper officials in good season.

HOCKEY

Evening is generally the most convenient time for hockey games—for players as well as spectators. A correct floodlighting installation gives the best illumination for fast, accurate play and materially increases attendance. Another opportunity for sales.

SIGNS

Floodlighted signs in conspicuous places have a well-recognized advertising value. Call on manufacturing and commercial houses and point out the merits of this publicity.

FACTORIES

Another industrial market is the floodlighting of factory buildings and areas. Explain that this is a measure of safety for night operation and is a protection from theft and damage.

REMEMBER—you sell not only floodlights and lamps but also, as a rule, conduit, switches, transformers, and the work of installation. The General Electric Supply Corporation will back you up with the recommendations of G-E lighting specialists and "printed salesmen" for your promotional work. Address the nearest office of the G-E Supply Corporation; any other G-E Merchandise Distributor; any G-E Sales Office; or General Electric Company, Schenectady, N. Y.

710-165

GENERAL  **ELECTRIC**

STOP! CRASHES!!



Clicks and Noises
of Man-Made
Static in Your
Radio Reception.

YOUR PROBLEM SOLVED

From experience installing over 10,000 Radio Outlets, we know what was needed. Exhaustive research and development have contributed this major achievement to the Radio Industry.

You Get Results
at small cost with the
New "AKAformer" Kit



Quickly and easily attached to any aerial or Radio set by anyone. Send for folder and give name of your jobber.

DEALERS and SERVICE MEN

A sample AKAformer Kit will be sent at our SPECIAL PRICE OF \$2.50.

Clip this ad., attach to your letterhead, with check and order for the amount. This offer is good only to Dec. 1st. After that, our regular list price of \$5.00 will be in effect, less usual discounts.



Trade Mark

AMY, ACEVES & KING Inc.

Consulting Engineers

11-13 West 42nd St.
New York

Inventors of this type of
noise elimination.

NEW—EASY WAY TO MAKE EXTRA MONEY —RIGHT ALONG



Selling Chromalox Replacement Range Units made \$210.36 in 4 weeks for this Reading, Mass. dealer.

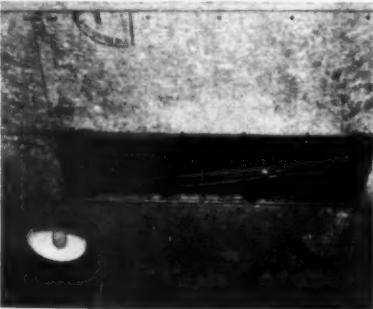


GO AFTER REPLACEMENT RANGE UNIT BUSINESS with Chromalox Units. Clapp & Leach sold 54 units in 4 weeks. Altoona, Pa. dealer made \$136.50 in 2 months. Richmond, Va. contractor sold 48 units in 4 months, made \$187.20 profit. Chromalox replacement units are a money-making, depression-proof item. Range owners want to buy them. Easy to install, sizes to fit every make of range, old or new. Write for sure-fire sales plan already in use by dealers; liberal discounts; free sales helps, etc. No obligation.

MAIL WITH YOUR BUSINESS LETTERHEAD TODAY!

E. L. Wiegand Co., 7585 Thomas Blvd., Pittsburgh, Pa. Without obligation, send us complete data about Chromalox Super-Speed Replacement Range Units and how we can make money selling them. There are approx. elec. ranges in the territory we serve. Check which () We sell elec. ranges () We do not sell elec. ranges. () Send us catalogs about Chromalox-equipped electric ranges.

Signed..... Position.....

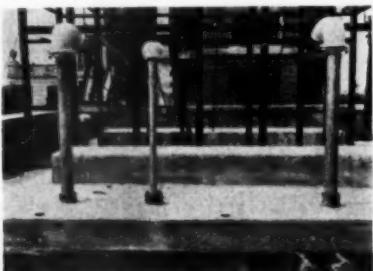


Duct with Cover Removed Showing
Feeders on Hangers

hooks or putting one on as the case may be. The sheet metal plates on the bottom of the duct are bolted to the lower parallel running bars of the iron framework.

RUN CONDUIT THROUGH STEEL SLEEVES

On a large hospital job in Sheboygan, Wis., the substation is located on the top of the power house and the panel board directly below inside. To bring the service wires directly below from the roof and to save time and labor of flashing in the conduit the Chas. A. Honold Company, electrical contractors of that city, decided to use 6-in. steel pipe sleeves flashed in copper and set in place before the concrete was poured. After



Service Conduit in Place Showing
Sleeves

the steel framework of the distribution station was put up on the roof and the panel board was set in place, the 4½ and 2½ in. conduits were run through the sleeves. To surface the ceiling below between the pipe and the conduits some concrete was poured in from the top after which oakum was put in and then lead was poured on top of that to make a weatherproof seal. Some additional sleeves were put up and sealed to take care of any additional requirements later on.

YAGER'S

Soldering Paste

Non-Acid. Non-Corrosive.
The original Yager's Flux
made in paste form for the
electrical trade.

Sold in Cans
2 Ounces
8 Ounces
1 Pound

Soldering Salts

No fumes, acid or corrosion.
Makes perfect electrical or mechanical joint.
Tin your irons with Yager's
Salts.

Sold in Cans
½ Pound
1 Pound
5 Pounds

BOTH SALTS AND PASTE
SOLD IN BULK IF DESIRED

Ask your Local Jobber

or
write direct to

ALEX R. BENSON CO., Inc.
Hudson, N. Y.



WRITE FOR CATALOG
KNOX PORCELAIN
CORPORATION
KNOXVILLE-TENNESSEE

Diversified

to meet all small-motor requirements



A line of small motors intended for application on motor-driven machinery must include all the electrical and mechanical types—for a *single* source of *all* types is far more desirable than a number of sources of incomplete lines of motors.

The Wagner line includes all types of small motors generally applied on motor-driven machinery, making it possible for electrical contractors to standardize on Wagner motors. Whether alternating or direct current; single or polyphase; open, drip-proof, totally enclosed or explosion-proof; rigid or rubber-mounted, flange-mounted or built-in; sleeve or ball-bearing; horizontal or vertical—there's a Wagner motor now in existence, ready to be applied on the job.

There are 25,000 different type-horsepower-speed combinations of Wagner motors (in ratings up to 400 hp). Certainly, your motor requirements are no greater than that!

For complete details, ask for Bulletin 167 describing Wagner small motors,

8432-2A
Wagner Electric Corporation
6413 Plymouth Ave., St. Louis, Mo.

Gentlemen:

Please send copy of Bulletin 167 on small motors.

If interested
also in
large motors,
indicate here

Name and Position

Firm

Address

Wagner Electric

MOTORS

TRANSFORMERS

FANS

BRAKES

NEWS MANUFACTURERS

A DEPARTMENT FOR THE ANNOUNCEMENT OF ACTIVITIES OF MANUFACTURERS THAT ARE OF INTEREST TO CONTRACTORS, SUCH AS CHANGES IN EXECUTIVE PERSONNEL, BRANCH OFFICES, NEW PRODUCTS, ETC.

NEMA ELECTS OFFICERS

The following officers for 1932-1933 were elected at the annual meeting of the National Electrical Manufacturers Association held at the Westchester Country Club, Rye, N. Y.: President, J. S. Tittle, Westinghouse Electric and Manufacturing Co., East Pittsburgh; First Vice-President, Otto H. Falk, Allis-Chalmers Manufacturing Co., Milwaukee; Second Vice-President, D. R. Bullen, General Electric Company, Schenectady; Third Vice-President, W. E. Sprackling, Anaconda Wire & Cable Co., New York; Fourth Vice-President, S. L. Nicholson, Westinghouse Electric and Manufacturing Co., New York; Fifth Vice-President, F. R. Fishback, Electric Controller and Manufacturing Co., Cleveland; and Treasurer, R. H. Goodwillie, Otis Elevator Co., New York.

MORGAN ELLIS RESIGNS FROM STEEL AND TUBES

Steel and Tubes, Inc., Cleveland, Ohio, announces the resignation of Morgan P. Ellis as general sales manager.

W. J. Sampson, Jr., vice-president in charge of sales, will be in general charge of all sales of Steel and Tubes, Inc., with M. J. Whitfield remaining as manager of conduit sales.

VAN CLEEF APPOINTS SALES REPRESENTATIVES

Van Cleef Bros., Chicago, has appointed Jack Ellison, division sales manager, to handle its line in Ohio, West Virginia, Western Pennsylvania and Western New York.

F. J. Keller Co. will represent Van Cleef Bros. in Texas, except El Paso, Oklahoma and Arkansas.

The company also reports that more orders were received during the month of August, 1932, than in any previous months in the past 23 years of business.

CHARLES GOVE PERKINS

Charles G. Perkins, one of the pioneer electrical men, died September 26 at his home in South Weare, N. H.

Mr. Perkins was born March 23, 1849, in South Weare, and at the age



Charles G. Perkins

of 17 went to Lowell, Mass., to learn the trade of tool maker. In 1880 he was engaged in installing the first incandescent lamps in New York City, and from this time on his work was purely in the electrical field. He was the inventor of a certain type of carbon filament for electric lamps and he also manufactured the well known Perkins incandescent lamp.

He organized the Perkins Electric Switch Mfg. Co., of Hartford, Conn., which company was sold to the Bryant Electric Co. of Bridge-

port, Conn. He later organized the Perkins Corporation of which he was president. Later the name was changed to the Arrow Electric Co. and Mr. Perkins continued as president of this latter company until its merger with Hart & Hegeman Mfg. Co., at which time he retired.

DAVIS TO MANAGE N. Y. INSULATED WIRE

The Essex Wire Corporation, Detroit, Mich., announces the appointment of David Davis, formerly of Davis-Jones Insulated Wire Co., Providence, R. I., manager of the New York Insulated Wire Co. division of Essex Wire Corp.

Duplexalite Division of The Miller Company, Meriden, Conn., has just released for general distribution catalog No. DP 172 which covers its entire line of commercial Duplexalite fixtures. It includes many new items that have been added to the commercial line as well as illustrations of many important new installations. The prices on many of the items have been very materially reduced.

CONTROLLED ELECTRIC HEAT FOR PLANTS

An illustrated eight page catalog (C1954) has recently been published by the Westinghouse Electric and Manufacturing Co., East Pittsburgh, Pa., entitled, "Quicken Plant Growth with Controlled Electric Heat." Specifications and detailed diagrams for recommended installations are included giving full information to anyone wishing to install electric heat in a hot bed.

A booklet describing and illustrating a new automatic oil furnace has been published by the General Electric Co., Schenectady, N. Y. The oil furnace described in this booklet is not merely an oil burner, but a complete oil furnace with burner and boiler coordinated in design, being completely automatic, and gives trouble-proof oil heating at lower fuel cost. Photographs are used illustrating the different uses that this furnace can be put to.

A new catalog on radio insulators, which contains price-lists, dimensions and illustrations as well as descriptive matter of the different units, has just been published by Knox Porcelain Corporation, Knoxville, Tenn.



CONTRACTORS TURN

TO

OLD-FASHIONED REMEDY

While plans to insure recovery and the return of prosperity were tumbling from the hopper, contractors began to realize as never before that the true measure of success is not size but progress—progress not necessarily in volume, but in PROFITS.

JUST COMMON SENSE

It's time to get back to fundamentals—to common-sense truths from which we should never have strayed. Let's return to the old-fashioned custom of working to make a Profit, not merely to make sales.

A DEPENDABLE GUIDE

"PROFIT—Your Silent Partner" is the title of a little booklet we have issued which describes in detail the NATIONAL ELECTRICAL RESALE PRICE SERVICE, which hundreds of successful Contractors and Dealers are using as their guide to new earning power and increased profits. Would you like to read it? If so, simply attach the coupon below to your letterhead and your copy will be forwarded immediately.

Henderson-Hazel Corporation,
5005 Euclid Avenue,
Cleveland, Ohio.

Gentlemen:
Without obligation please send us your booklet, "Profit—Your Silent Partner."

Name.....

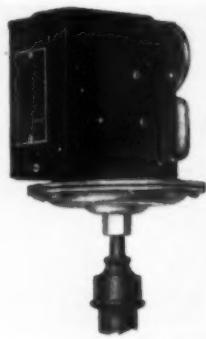
Address.....

City.....

State.....

E.C.11-32

New Electrical Products



A high water alarm for use over sump or open tanks is announced by the Industrial Controller Division, Square D Co., Milwaukee, Wis., consisting of a single pole pressure switch, a transformer and signal bell, wired in one unit and mounted on a 1 in. pipe. A rising column of liquid in pipe exerts air pressure on diaphragm of switch, closing a contact and ringing the bell. Switch is designated Class 9036H1.



The Jefferson Electric Co., Bellwood, Ill., announces the Jefferson ozonator for the artificial production and distribution of ozone. Manufacturer claims that the design and small size of unit makes a controlled supply of additional ozone for purifying, vitalizing and deodorizing wherever ventilation problems are difficult. Circulating fan helps to distribute ozone and produces a slight movement of air. Unit has an art-lacquer finish with base slotted for hanging, and rubber padded feet.



All-Steel-Equip. Co., Aurora, Ill., has placed on the market Hi-Lo barriers to be installed in all 2 in. and 2½ in. deep sectional switch boxes and into 4 in. square outlet boxes and two-device covers, to divide a cabinet or box in order to separate wires of different systems. To install barrier in outlet box, place bottom projections of barrier in holes in bottom of box, and drop slotted cover over top projection. Barrier cannot be removed after plastering. Scored portions at top are easily broken off with pliers to provide proper barrier depth for ½ in. deep or ¾ in. deep covers. Hi-Lo barriers are also assembled with switch boxes; centers, or spacers, are notched in box to receive barrier projections.



"Ivory glow", a semi-indirect socket suspension lighting unit, is announced by The F. W. Wakefield Brass Co., Vermilion, Ohio. In size, contour and method of suspension it is similar to Wakefield's "What-a-Lite", but urea-formaldehyde molding compound is used in forming a lighting reflector, which the manufacturers claim, produces a unit which is light in weight, non-shattering, impervious to moisture, and of high reflection value. Reflector is suspended by bead chain either from lamp bulb or socket adapter. By means of a ferrule on adapter the socket suspension limits lamp size to from 75 to 150-watts. Weight of bulb suspension unit is 9 oz.



The Benjamin "Kode-Kall" for code calling in industrial plants, offices, mines, stores, schools, etc., is announced by The Benjamin Electric & Mfg. Co., Des Plaines, Ill. Unit has 30 code combinations repeated three times with one setting, and operates any type signal. This device has contact points of coin silver and are rated at 100 watts at 110 volts. Unit is furnished in office green crackle lacquer with polished metal trim. Rubber foot pads are provided on bottom.



H. B. Sherman Mfg. Co., Battle Creek, Mich., is manufacturing standard duty and heavy duty lugs made of seamless copper tubing. Standard duty lugs are furnished only in long tongue 2-hole style, providing two bolts each and are adequate for general purposes although they will not permit cable to fuse in case of sustained short circuits. Heavy duty lugs are interchangeable with standard cast lugs, and have the narrow tongue. These lugs can be used in replacement on old apparatus without any mounting changes. Heavy duty lugs have 2 and 4 holes.



C. F. Burgess Laboratories, Inc., Madison, Wis., announces a multiple outlet which fits at the top of baseboard, beneath plate rail or as a moulding around the room. This is a metal channel divided into two sections and joined by a groove joint. It comes in standard lengths to suit any purpose, is ¾ in. deep by 1¼ in. high. Plug-in sockets are furnished every 3 ft. or at closer intervals if desired. Channel is made of steel, zinc coated, with outlet sockets of standard type flush with surface.



The Square D Company, Detroit, Mich., announces an improved line of type C industrial switches. Among the major improvements are larger boxes, positive quick make and quick break operating mechanism and the addition of positive pressure fuse clips. The Type C switches are equivalent to the Type A line, with the exception of keyed interlocking. Capacities range from 30 to 600 amp., 250 volt, and 30 to 200 amp., 575 volt, fused or unfused. Square D also announces its general service line of industrial safety switches, ranging in capacities from 30 to 400 amp., 250 and 575 volts, fused or unfused. Switches rated above 30 amp. are quick break only.

Interpreting **An Editorial Achievement**

ELECTRICAL WHOLESALING has received, with a real sense of appreciation, the bronze medal awarded by the Associated Business Papers, Inc., for outstanding editorial service to its industry.

The editors of Electrical Wholesaling have developed a program which has had as its objective a better understanding of the important function in distribution performed by the wholesaler in the electrical industry. The award emphasizes the success which the publication has had in making those objectives clear, and in winning industry acceptance for the specific plan under which Electrical Wholesaling has sought to make this vital part of the distribution machine function to the best advantage of manufacturer, trade, and the public.

It is particularly gratifying to the entire organization of Electrical Wholesaling to know that the work of the editors has been recognized with this notable award, and it is also gratifying to realize that their program is making it possible for distribution in the electrical industry to be carried on with constantly increasing effectiveness and economy.

Electrical Wholesaling

ESTABLISHED 1920

Member Associated Business Papers, Inc.

Member Audit Bureau of Circulations

520 N. Michigan Ave., Chicago

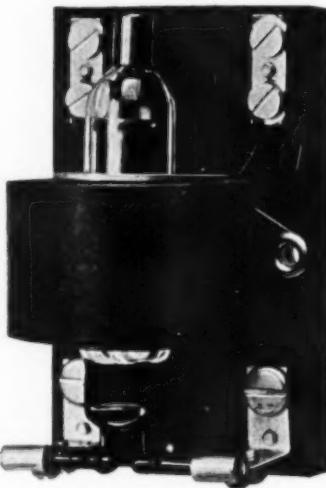
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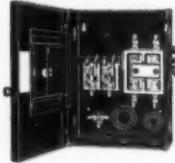
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Also Publishers of **ELECTRICAL CONTRACTING** and **MILL SUPPLIES**

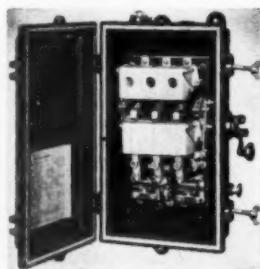
New Electrical Products



"Diamond H" magnetotube relay is announced by the Hart Manufacturing Co., Hartford, Conn. Unit is made up of a glass tube inside of which there is a porcelain cup separating 2 concentric pools of mercury (each of these pools is connected to terminals at bottom of base). Surrounding the porcelain cup is a metal cylinder having magnetic properties, so arranged that when moved it will displace mercury in the outer pool completing a mercury to mercury contact. Action of cylinder is controlled by a solenoid (or coil) on outside of tube. Action is entirely magnetic, tube remaining stationary at all times. Unit is mounted on a bakelite base with convenient terminals for both load and control circuits.



The Wadsworth Electric Mfg. Co., Covington, Ky., announces an accessible fuse meter service switch, 30 and 60 amp. size. Cabinets have a sliding door giving access to fuses when switch is in "off" position without opening main door of cabinet. Switch base is mounted on left and fuse base on right, eliminating crossing of meter leads. Self-aligning blades assure positive electrical connection with switch contacts and mounted that they can be easily inspected when main cabinet door is open. Ample wiring space and all wiring terminals in plain view make for easy wiring. Cabinets have a large amount of various size ring-cut concentric knockouts that can be removed. Cabinets are finished in baked black enamel.



The Industrial Controller Division, Square D Co., Milwaukee, Wis., has added a.c. combination starters of water and dust tight construction in cast iron to its line of starters, for installation in damp or dusty locations and corrosive atmospheres. Unit consists of an across-the-line starter, motor control switch and test jack, and built in two sizes known as Class 8532S and 8536S. Switch mechanism is enclosed in cast iron cabinet having machined flanges and is fitted with rubber gaskets. Starters can be furnished fusible or non-fusible. Thermal overload protection and low voltage protection are provided.



The Corox quick cook unit, built of stainless sheet steel parts, has been announced by the Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., for use in electric ranges. The pan, heater support and terminal straps are made of cold rolled steel and nickel plated. Heat unit is supported in pan by four "V" shaped supports and held rigid by a center stud and the four terminal posts. Standard porcelain terminal block is mounted underneath the pan and all terminal connections are made on underside where they will operate at a comparatively low temperature. In making this unit the heating coil is wrapped with a magnesium ribbon and clamped between two stainless steel plates properly formed to accept insulated coil.

The General Electric Co., Schenectady, N. Y., is offering a new line of switchboards employing air circuit breakers for control and protection of power and lighting lines, to meet the requirements of industrials, building equipments and power station auxiliaries. The breakers are trip-free and can be manually or electrically operated, and ratings are up to 750 volts and 4000 amp. a.c., and 6000 amp. d.c. Switchboards are manufactured in the dead-front, metal-enclosed and metal-enclosed draw-out types. The dead-front type has a metal front and end grilles to a wall which encloses rear of switchboard, with breakers mounted rigidly within dead-front enclosure. Metal-enclosed type has breakers mounted rigidly within a completely enclosed structure, with doors at front and removable plates at rear. Metal-enclosed draw-out type is completely enclosed with breakers mounted on removable units, have disconnecting devices and interlocks with trip breaker at starting point. Manually-operated breaker is tripped by pressing trip button and closed by raising and lowering of handle. Green and red targets, visible from front of switchboard, indicate position of breaker.



A portable public address system fitted into a carrying case is announced by Western Electric Co., New York City, designated as No. 13-A. All the apparatus is carried in a case 19 1/4 in. square and 10 1/8 in. deep and weighs approximately 70 lbs. Main part of standard system consists of a loud speaking telephone outfit; a microphone control unit; lapel microphone; microphone connecting cord and power connection cord with attachment plugs. System operates from a single connection to an ordinary a.c. lighting circuit, through either socket or receptacle. Case also contains a bracket for carrying spare vacuum tubes. Loudspeaker is of a dynamic type and is mounted on a wooden baffle board in front of carrying case. The lapel microphone is 1 1/4 in. in diameter and is a carbon button transmitter encased in soft rubber with metal clip for fastening to user's clothing.

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Index to Advertisers

A

Alphaduct Co. 53
American Steel & Wire Company.... 43
Amy, Aceves & King, Inc. 46
Ansonia Electrical Company, The.... 54
Armstrong Bros. Tool Co. 53
Arrow-Hart & Hegeman Electric
Co., The 39

B

Benson Co., Inc., Alex R. 46

C

Central Tube Co. 33
Century Electric Company.... 41

D

Diehl Mfg. Company.... 44

E

Electrotrim, Inc. 40

F

Fairbanks, Morse & Co. 55
Federal Electric Company.... 53
Fretz-Moon Tube Company, Inc.... 42
Fullman Mfg. Co. 53

G

General Electric Company....
.... 29, 35, 45, Back Cover
Graybar Electric Co. 4
Greenlee Tool Co. 36

H

Hazard Insulated Wire Works.... 28
Henderson-Hazel Corporation 49

I

Ideal Commutator Dresser Company 36

J

Jefferson Electric Company....
.... Inside Front Cover

K

Kimble Electric Company....
.... Inside Back Cover
Knox Porcelain Corporation.... 46

M

McGraw-Hill Book Co., Inc.... 40, 44
Metropolitan Device Corporation.... 32
Minerallac Electric Co. 38

N

National Electric Cookery Council. 37
National Electric Products Corp....
.... Front Cover

O

Okonite Company, The.... 28

P

Pass & Seymour, Inc.... 27
Plainville Electrical Products Co.,
The.... 53

R

Ralco Manufacturing Company.... 42
Rattan Mfg. Co., The.... 53
Roebling's Sons Co., John A.... 56

S

Sherman Mfg. Co., H. B.... 38
Standard Transformer Co., The.... 53
Steel and Tubes, Inc.... 2

V

Van Cleef Bros.... 34

W

Wagner Electric Corporation.... 47
Wiegand Company, Edwin L.... 46
Wolverine Tube Company.... 53

Y

Youngstown Sheet & Tube Co., The 31

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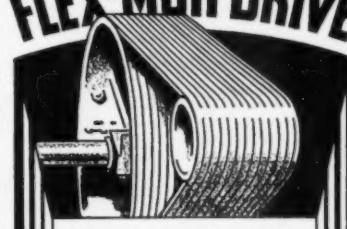
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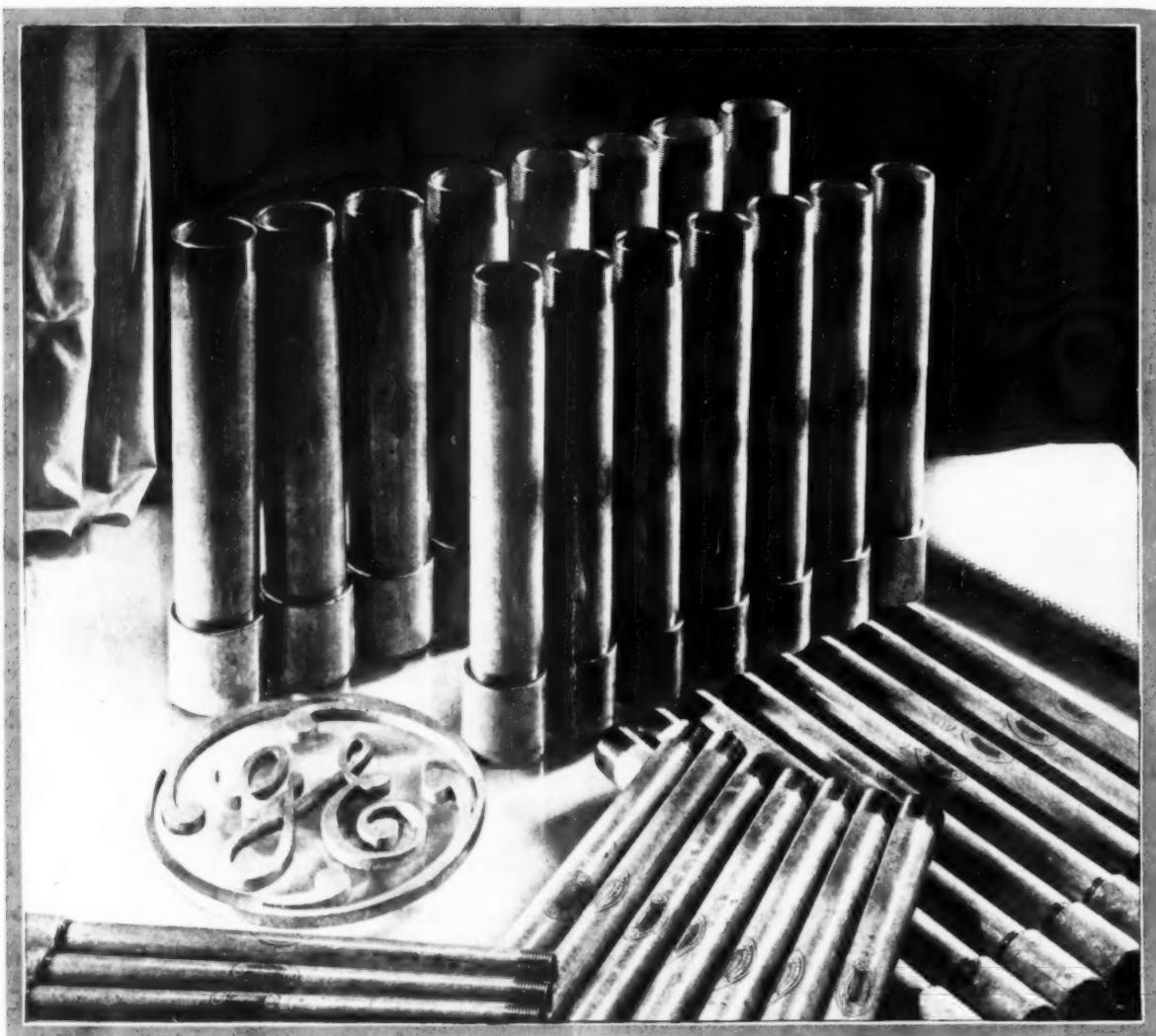
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